ADMINISTRATION REPORTS

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OF THE

FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND

For the Year 1875-76.

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FOREST ADMINISTRATION REPORT

OF THE

NORTHERN DIVISION, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1875-76.

CHAPTER I.

INTRODUCTION.

1. No alteration has taken place in the distribution of Forest circles during the year; but transfers of District Forest Officers have in some cases been made, owing to the departure of Mr. Morphew from Satara on sick leave, mentioned in para. 6 of last year's Report, and to other changes.

2. The Tanna forests have remained in charge of Mr. Gibson, Assistant Conservator, 2nd grade, who has had Mr. Mainwaring, a trained Forest Officer, as his Assistant throughout the year.

3. Mr. Hewett, District Forest Officer of the Kolába and Dápoli Circle, suffering from bad health, was permitted three months' privilege leave of absence under Government Resolution No. 1851 of 27th March 1875, which he availed himself of from the 8th April, after office hours, being relieved by Mr. Whitworth, Second Assistant Collector of Kolába, who retained charge of this District Forest Office for nine days only, when the Collector, Mr. Crawford, took it into his own hands, and conducted the duties until 28th May, when Mr. Narayen Bullal Oke, Sub-Assistant Conservator, was sent from Khandesh to officiate as District Forest Officer of Kolába and Dápoli until Mr. Hewett's return, which took place on the 8th July 1875. Mr. Narayen Oke then went back to Khandesh.

4. Excepting the short time of his absence at Kolába, Mr. Narayen Bullal Oke had charge of the Khandesh Forest Circle during the year. Mr. Horsley, C.S., officiated from the 22nd May to 22nd July 1875, while Mr. Narayen was at Kolába, under sanction of Government Resolution No. 2627 of the 7th May 1875.

5. The Násik and Peint Forest Circle was administered by Mr. Wroughton, Assistant Conservator, without change throughout the year.

6. Mr. Narayen Anant Okidway, Sub-Assistant Conservator, continued as District Forest Officer of Ahmednagar; as did Mr. Wallinger, Deputy Conservator of Poona.

7. As stated in para. 6 of last year's Report, the Conservator of Forests, N. D., took over the office and duties of the Satara District Forest Office on the 11th March from Mr. Morphew, who proceeded on the 1st April 1875 on one year's furlough on sick certificate to Europe. Mr. Dunbar, Assistant Conservator, was transferred from the Panch Máháls to Satara under Government Resolution No. 2627 of the 7th May 1875, and assumed charge from the Conservator on the 17th idem; but Mr. Dunbar's health failed him, and he had in consequence to proceed to Bombay on sick leave on the 15th December 1875, which was afterwards converted into furlough to Europe for one year from the 26th January 1876. Mr. Dunbar on departure handed over his office to the Huzur Deputy Collector, who retained it for a few days, when Mr. Shewan, C.S., was appointed to act as District Forest Officer, and continued to do so up to the close of the year.

8. The Sholápur forests were managed by Mr. Govind Ramchandra, Head Inspector, who has been in charge of them since 2nd March 1872.

9. The Guzerat Circle, comprising Surat, Broach, and the Dangs, has remained under the control of Captain MacRae, Deputy Conservator, who at the commencement of the year had a trained Forest Officer, Mr. Fry, as his Assistant; but on the departure of Mr. Dunbar from the Panch Máháls, on transfer to Satara, Mr. Fry was appointed Acting District Forest Officer of the Northern Circle, and has continued administering it nearly the whole year.

10. 1875-76 commenced with Mr. Dunbar as District Forest Officer of the Northern Circle; but his health not being good, he applied for privilege leave, which was granted to him under Government Resolution No. 2331 of the 21st April 1875, in the Revenue Department, and Mr. Trevor, Governor General's Agent in charge of the Panch Máháls, conducted the work until relieved by Mr. Fry on the 31st May 1875.

11. The foregoing remarks show what officers were in charge of the different forest districts during the year under report, and now the history of the administration of the forests of these districts will follow.

CHAPTER II.

AREAS AND RESERVES.

12. The work of demarcation has been carried on with vigour in several districts by an Assistant Collector working alone, especially deputed for the duty; as in Khandesh by Mr. Horsley, C.S., and in Tanna by Mr. Sinclair, C.S., or by a Forest Officer acting in co-operation with an Assistant of the Collector of the District; as in Násik by Messrs. Wroughton, Forest Officer, and Charles, C.S.; in Poona by Messrs. Johns, C.S., and Macpherson, C.S., on the one side, and Mr. Wallinger, Forest Officer, on the other; in Tanna by Messrs. Allen, C.S., and Gibson, Forest Officer; and on the Satara Gháts by Mr. Winter, C.S., in co-operation with the Conservator. The progress made is considerable, and compares favourably with the work done in the preceding year.

13. The sanction of Government has been accorded during the year to the selections for forest reserves made in several collectorates of the division by the demarcating officers, and the reserved area has thus been increased by 461,567 acres, or 721 square miles, during 1875-76.

It will be as well to speak of each district in its order, reporting what has been done therein.

TANNA.

14. The Government of India sanctioned in their letter No. 529 of May 1875 the employment for two years of an Assistant Collector on the special duty of demarcating the forests in the Tanna Collectorate, on the salary and with the travelling allowance below mentioned:—

Salary of officer	Rs.	700
Travelling allowance	„	150

Establishment.

1 Sheristedar at	Rs.	30
1 Mapper at	„	40
2 Peons at Rs. 8 each	„	16
		86

Total 936 per mensem;

and the Government of Bombay, in their Resolution No. 2886 of the 21st May 1875, expressed their intention to appoint an

officer from the 1st January 1876, and to count from that date the two years for which the sanction will last.

15. Subsequently Government in their Resolution No. 4057, dated 19th July, stated as follows :—

"His Excellency the Governor in Council proposes to appoint an officer from the 1st January next to the duty of forest demarcation in the Tanna Collectorate.

"2. The principles by which the demarcating officer is to be guided must be very distinctly and carefully laid down, as well as the rules for management after demarcation.

"3. The officers marginally noted should meet as soon as convenient to decide, subject to the confirmation of Government, the details necessary to give effect to the above instructions, on the basis of the note submitted by the Acting Revenue Secretary, which is generally approved of by Government.

Mr. Ashburner, Revenue Commissioner, N. D.
Mr. Robertson, Collector of Tanna.
Colonel Francis, Survey Commissioner, N. D.
Mr. Shuttleworth, Conservator of Forests, N.D.
The Acting Revenue Secretary.

"4. In framing detailed instructions to the demarcating officer and rules for forest administration subsequent to demarcation, the Committee should be careful that the operations of the Forest Department shall be as little as possible vexatious to the people, and also that the prominence given to the Collector of the district in the Secretary's note shall be maintained.

"5. The Committee should consider how far and on what terms it is desirable that advantage be taken of this opportunity for Government to forego its claim to timber of any description growing on occupied lands."

16. The Committee above ordered met on one occasion, when one of its members was absent, and although much discussion took place, nothing definite was decided. Subsequently the Conservator wrote a memorandum of his views regarding the way in which the Tanna forests should be demarcated, and the other members of the Committee likewise wrote reports, one of which was signed jointly by Messrs. Ashburner, Revenue Commissioner, N. D., and Pedder, Acting Secretary to Government; and, finally, Government, in their Resolution No. 94 of the 5th January 1876, issued the following orders :—

"On a consideration of the report of the Committee assembled, under Government Resolution No. 4057 of 19th July 1875, to consider the principles upon which the demarcation

of the Tanna forests should be carried out, and the rules under which these forests should be administered after demarcation, Government are pleased to issue the following orders :—

"2. *First.*—As regards demarcation. The proposals in the report signed by Mr. Ashburner and Mr. Pedder respecting the erection of boundary-marks; the correction of the survey maps; the payment of compensation for occupied land taken up for the reserves; and the preliminary preparation of coloured maps by the Survey Department to show the existing demarcation, state of occupancy, &c., are approved. The Survey Commissioner, N. D., should be requested to take immediate steps, in concert with the Collector and Forest Department, for the preparation of the coloured maps,

"3. The chief point on which the Conservator, N. D., differs from the other members of the Committee is with reference to the relation of the demarcating officer and Collector—Mr. Shuttleworth desiring that the demarcation should be entirely done by the demarcating officer on the part of the Forest Department in the first instance, and that the proposals of the Forest Department should be forwarded to Government through the Collector with his remarks or objections. Government, however, concur with the majority of the Committee that the work should be carried out by the demarcating officer in concert with the Collector throughout. The demarcating officer should first make himself acquainted with the ground in the forest tract selected for his operations, and should then, with the assistance of the preliminary maps, decide in concert with the Collector as to the general extent to which additional land should be thrown into forest, as to the division of first-class and second-class reserves, &c. This having been settled, the demarcation should be proceeded with, minor details being left to the decision of the Demarcating Officer. Should the demarcating officer and Collector differ, or should the Conservator of Forests object to their decision, the point should be referred for the orders of Government. In case the Collector himself should be unable personally to decide with the demarcating officer regarding the demarcation of any particular tract, he may depute this duty to an experienced Assistant.

"4. As regards the rules for subsequent forest administration, Government concur generally with the views of the majority of the Committee.

"5. The wild tribes who live in and have prescriptive rights of any kind in the forests, must be treated with great

consideration, and as far as possible utilized in forest conservation. Government approve of the proposal to grant small pieces of land rent free, or, if they prefer, some forest privileges, to certain families of these people in return for their assistance in the preservation and management of forest. Such concessions should be reported for the approval of Government, as well as what is proposed where the families are more numerous than can be usefully employed.

"6. In second-class reserves a system of rotation of closure in respect of ráb and firewood-cutting should, wherever possible, be laid down and strictly adhered to with due consideration of the position and circumstances of the villagers interested. When the forest block is too small for regular rotation, strict measures for the conservation of the reserved kinds of timber in it must be enforced, and it must be closed altogether, with the consent of the Collector, when it shows signs of exhaustion.

"7. Occupants, to whom warkas was originally specially assigned for the supply of ráb and firewood, are not entitled to those privileges in second class forests, although they may have improvidently allowed their own lands to become exhausted.

"8. Government agree with Colonel Francis that privileges of firewood-cutting, ráb, &c., must be confined for each village to the forest lands in its own limits, and must not be extended during periods of closure to the forest lands of other villages, unless there is clear proof of an existing custom to this effect. During such periods of closure the people must arrange for their firewood, ráb, &c., as do those of villages who have no forest privileges.

"9. The existing rules for the free grant of timber for agricultural purposes must remain in force. The subject of paragraph 24 of the Report will be separately disposed of.

"10. The charge of waste lands generally is not to be transferred to the Forest Department, whose authority and responsibility are to be strictly limited to forests of the two classes, and to their own plantations.

"11. Under the sanction conveyed in Government of India No. 606, of 4th June 1875, Government are now pleased to appoint Mr. Sinclair, C.S., to be the Demarcation Officer for the Tanna District. The work should be commenced as soon as possible, and every effort should be made to get on with it as rapidly as is consistent with its being done satisfactorily."

17. The Acting Collector of Tanna subsequently applied for a re-consideration of the principles laid down in paras. 8 and 10 of the above Resolution, and suggested that the list of reserved kinds of timber should be framed by the District Forest Officer and the Collector, with the concurrence, if necessary, of the Conservator and the Revenue Commissioner, to suit different localities.

18. The Revenue Commissioner, in forwarding on the Collector's letter, expressed the following opinion in his third para. :—

> "The object of reserving certain kinds of trees in second-class reserves is to allow the people to provide themselves with wood, which they *must* have, and at the same time to protect the jungle from the waste and destruction of timber which is inevitable. If, however, it is found that the reserved kind include *all* the useful timber in any particular jungle, the Collector and Forest Officer must exercise their discretion in curtailing the list; they should be told that in selecting the reserved trees they should not be too greedy, and that whatever may be the number of reserved trees, the jungle must still contain a number of unreserved trees sufficient to supply all the wants of the people for agricultural and domestic purposes."

And Government, in their Resolution No. 1183 of the 24th February 1876, issued orders as under :—

> " With regard to the first proposal, that when any portion of a reserve is closed for cutting, it should be closed for grazing and ráb as well; it may be done when the Collector is of opinion that the remainder of the reserve is sufficient for the purpose, with the Revenue Commissioner's sanction. When such closing has been rendered practicable only by the combination of the lands of several villages, the rights of the inhabitants of one of these must, of course, not be extinguished, or held in abeyance in consequence of the portion of jungle within their limits only being closed. Government agree with the opinion expressed by the Revenue Commissioner in his 3rd paragraph on the subject of the reserved kinds of timber.
>
> " 2. The instructions in paragraph 10 of the Resolution were issued in consequence of the simple impracticability of the Forest Department, with their limited establishments, taking charge of all waste lands and the trees they contain. This must, as a general rule, be done by the Collector with the aid of his taluka and village establishments. This need not, however, prevent the forest establishment receiving special

charge, with the Collector's approval, of such small tracts as they may be able to look after with existing establishments, provided that in such cases the forest officers strictly conform to the instructions of the Collector in all matters connected with the customary rights of the villagers to wood for domestic or agricultural purposes, ráb, grazing, &c."

19. Mr. W. F. Sinclair, C.S., was appointed special officer for forest demarcation in this collectorate in January 1876, and commenced operations in the Kalyán Taluka, but no report of his working was received before the close of the year.

20. Government, in their Resolution No. 1797 of the 21st March 1876, directed that the Land Acquisition Act should be put in force for obtaining possession of 9 acres of Survey No. 56 of Alman, in the Wára Taluka of Tanna, which formed a portion of the Alman forest reserve, the occupant refusing all offers for its relinquishment.

21. Mr. Gibson, District Forest Officer, in co-operation with the Second Assistant Collector, Mr. Allen, C.S., during April and May 1875, carried on the selection of forest reserves in the eastern part of the Wára Taluka, and submitted a report upon their proposals in November 1875, but up to the end of March 1876 the orders of Government had not been passed upon it. The operations of these two officers provide for the placing of 31,793 acres into first class and 6,321 acres in second-class reserve.

22. Mr. Vishnoo Ramchander, Mámlatdár of Broach, was again deputed to the Wára Taluka to make arrangements with the holders of the several fields that have been included in the reserves already demarcated and sanctioned in that taluka for the acquisition, on exchange or payment of compensation, of their lands. Mr. Vishnoo Ramchander has carried on the work with much tact and ability, and has succeeded in inducing all the ryots, with a single exception only, to come to terms. Rs. 1,691-15-0 were actually paid away as compensation during the year. Registration fees cost Rs. 36-10-0. The extra travelling allowance, at the rate of Rs. 80 per mensem, paid to Mr. Vishnoo, under authority of Government Resolution No. 4778 of the 5th September 1874, amounted to Rs. 224-8-3. Temporary establishments cost Rs. 68-11-9, contingencies Rs. 6-14-9, and travelling allowance paid to the Sub-Registrar of Wára came to Rs. 9. Thus the expenditure incurred under the head of compensation for land aggregated Rs. 2,037-11-9, for which 421 acres warkas were obtained.

23. The total expenditure on account of forest organization during the year has amounted to Rs. 4,861-0-1, made up of—

Surveys ... ...Rs.	2,252	7	10
Cost of boundary pillars ... ... „	70	5	0
Compensation ... ... „	2,538	3	3

of which Rs. 500-7-6 were refunded into the Treasury.

KOLA'BA.

24. The reserved area in this collectorate was increased during the year by the acquisition of the Bhendi Bagh at Sat Tar, near Alibág, of 16 acres 23¼ guntas (*vide* para. 96 of last year's Report), which the High Court had ordered to be made over to the charge of Bapu Devjee Powar, who, when the plantation was first established by Dr. Gibson in 1854, was made manager of it on behalf of Government.

25. In their Resolution No. 3089 of the 1st June 1875, in the Revenue Department, Government decided as follows regarding the acquirement of this property :—

> "Under the circumstances Government see nothing for it, but to hand over possession of the garden to Powar, and gives Rs. 16,500 as compensation to Dhowlay, the Collector being directed to see that the former's contract is acted up to the letter in future. It is most important that at the time of putting him in possession a document should be drawn up, fully describing the present condition of the garden, the number, size, and age of trees in it, &c. This should be signed by respectable witnesses after personal inspection of the garden, and, if possible, Powar's own signature should be obtained thereto.
>
> "2. The Conservator of Forests should have a separate account kept of the garden, and a copy of the profits derived from sale of wood, &c., should be annually sent to Government, in order that they may see how the present outlay is being occupied."

26. The Collector, Mr. Arthur Crawford, reported to Government that in the demarcation of the Kolába forests, undertaken in 1864-65 by the Revenue Survey Department, several fields belonging to ryots had been taken up for which no compensation had been paid, and that the ryots were clamouring for a settlement of their claims, and would most probably have recourse to the Civil Court if not otherwise satisfied. Government thereupon gave Mr. Crawford full authority to inquire into the several cases,

and to settle them according to his judgment. This work was not completed by the 31st March; but Rs. 600 were paid as compensation during the year. The principle observed by Mr. Crawford in his working was similar to that upon which the Ranwadi Budruk land was considered, of which mention was made in para. 25 of last year's Report, and upon which Government Resolution No. 1233 of the 27th February 1875 was passed. Such lands as from their position in respect to adjacent properties were desirable of retention were not given up, but the owners were compensated in money; while lands isolated and at a distance from reserves, which were not worthy of being acquired on payment of considerable sums, were restored to their former occupants.

27. Fifty-nine new boundary-marks were erected round the Sagargarh reserve in the lands of Raishet, Bámnoli, Kusumbleh, and Mahan at a cost of Rs. 59, and 181 casuarina seedlings were planted out along the forest boundary.

28. The total cost of forest organization in this collectorate during the year amounted to Rs. 1,275-2-3, composed of—

	Rs.	a.	p.
Cost of boundary pillars ...	105	4	0
Surveys...	306	7	3
Compensation	863	7	0

RATNA'GIRI.

29. The Collector of Ratnágiri submitted to Government an amended notification for publication in the *Government Gazette*, regarding the area and assessment of land required for forest purposes to consolidate the Bandh reserves in the Dápoli Taluka, in lieu of that published at page 61 of the *Bombay Government Gazette* of the 17th January 1873, which had been found inaccurate in some respects. Upon which Government, in their No. 6987 of the 13th December 1875, resolved as follows:—

> "On examining the maps it appears that, with two exceptions, the lands to be taken up are required to make the forests symmetrical in shape with a view to better management. The amended notification submitted with these papers may, therefore, issue, provided that all private endeavours to obtain the lands for reasonable compensation have failed, and the notification already issued under Government Resolution No. 292, dated 17th January 1873, which has been found to be incorrect, be cancelled.

"2. The exceptions referred to in the preceding para. are in the villages of Dápoli itself, where there is apparently no other forest, and of Dalkhan, where the forest numbers are sufficiently regular in shape without taking in more land. The lands in these villages should, therefore, be omitted from the notification to be issued."

30. But the Conservator of Forests subsequently reported to Government that the above pieces of land are required to make the Bandh forest reserves more symmetrical and compact, and forwarded a map showing that such would be the case. Whereupon Government, in their Resolution No. 727, of the 2nd February 1876, ruled that, under the circumstances now stated, the notification of the Dalkhan and Dápoli lands may now issue. Accordingly, notifications were published in the *Government Gazette;* and Mr. Todd, Second Assistant Collector, took the necessary steps to ascertain and offer the amount of compensation to be paid to the different land-holders, but up to the close of the year no disbursements were made.

31. The following properties, that had originally been set aside for forests at the time of survey settlement, were taken formal possession of during the year, and a forester appointed for their protection :—

	Acres.	Guntas.	
Kumbhárli	260	28	In taluka Chiplun.
Kalakwadi	148	8	
Akli	120	23¼	
Tiwudi...	180	28	
Ghera Rasalgarh ...	301	0	Taluka Khed.
Ghera Sumargarh ...	1,520	0	

32. Five annas were paid for compensation for lands included in reserves during the year.

KHANDESH.

33. Government, in their Resolution No. 3422, dated 17th June 1875, approved of and sanctioned certain rules given below, which were proposed by the Revenue Commissioner, N.D., for the demarcation and administration of forest reserves in Khandesh, in the following words :—

"The rules, as amended by the Acting Revenue Commissioner, N.D., are approved and sanctioned; copies should be printed and forwarded for distribution to the Collector, who should arrange for supplying Native officers with translations of them.

"2. Government concur generally in the Acting Revenue Commissioner's remarks about second-class reserves. It has rightly been decided to treat as second-class reserves, without further demarcation, all the forests in the five Sátpura talukas which are outside the first-class reserves. It must be remembered that, the valuable first-class reserves and wood-clad hills alone excepted, cultivation is to be allowed where villages and cultivation have existed formerly; and if the district officers do their duty as they have hitherto done, it will be impossible for persons to take up land solely with a view to cutting the trees upon it. Government approve of the proposal to levy grazing and other fees in the Sátpuras. They desire, however, that in the case of villages in and near the hills, which have always had free gazing, exemption from grazing fees should be very liberally given; and it is a question whether such fees should not be confined to Tillaris and other professional cattle-dealers. This is a matter, however, which can be left to the discretion of the district officers. The rules proposed by the Acting Revenue Commissioner for second-class reserves other than in the Sátpuras seem judicious. Care should be taken that no check is given to the rapid clearance of jungle from off the rich tract between the Sátpuras and the Tapti, the reclamation of which has been so marked a feature in the progress of Khandesh during the last twenty years.

"3. The Acting Revenue Commissioner should be requested to state what arrangements are proposed for the demarcation of second-class reserves other than in the Sátpura talukas, the settling of the grazing privileges in them, &c.

"4. Rule 18 provides that the officer demarcating forests should, in consultation with the Principal Bheel Agent, prepare the lists of Bheels and members of other wild tribes who are to be allowed tickets for cutting wood free. As additional tickets may have to be given from time to time after the forests are demarcated, it will be as well to entrust the duty for the future to the Principal Bheel Agent in order to prevent persons who have no claim to a livelihood in the forests obtaining tickets in virtue of their race alone. Copies of the registers of ticket-holders should be kept in the offices of the Revenue and Forest Officers and of the Bheel Agent. Care should be taken that no promise be made to the ticket-holders which may hereafter be construed in a court of law as entitling them to cut wood as of right instead of favour. Government desire also that a strict watch be kept to prevent a ticket-holder becoming, to use Mr. Horsley's words, a kind

of wood-contractor for sowkars of the plains, by merely accompanying their carts to the naka, and showing his ticket. This is the principal abuse to be guarded against.

"5. By Government Resolution No. 1390, dated 6th March last, it is not meant that the seven kinds of wood therein referred to should be reserved in the same way as teak and the other eight kinds, but that they should be cut as heretofore at the old rate of Re. 1 per cart, instead of at the reduced rate of 8 annas. Bheels, &c., under the rules now sanctioned, may, if they have tickets, cut these kinds gratis.

"6. The Collector should be requested, in consultation with the other local officers, to prepare a table of fees to be levied under the rules now sanctioned for the approval of Government."

Rules for the Khandesh forests, as amended by the Acting Revenue Commissioner, N.D., and sanctioned by Governmentin Government Resolution No. 3422, dated 17th June 1875:—

"1. A first-class reserve is to be a compact block of land with no cultivation, and already forest clad.

"2. It is to be marked off by such boundary-marks as may be approved of by Government.

"3. All revenue of whatever sort from it is to be credited to forests.

"4. The demarcating officer should visit the reserve with the Collector or Assistant Collector in charge, and the Mámlatdár and the Principal Bheel Agent where Bheel interests are concerned. They should jointly institute an inquiry into the circumstances, and draw up a set of rules for the reserve, giving a copy to the Mámlatdár, and informing all the neighbouring villagers. The Forest Department to be absolute in a first-class reserve subject to these rules.

"5. In drawing up these rules due care shall be taken not to interfere with existing rights of permanent way, grazing, watering of cattle, fuel-cutting, and provisions for the Bheels.

"6. When selecting first-class reserves care should be taken to leave land for extension of cultivation and grazing.

"7. A book of first-class reserves, with maps and their rules, to be made, and copies should be supplied to Government, the Revenue Commissioner, Conservator, Collector, Bheel Agent, and Mámlatdár and District Forest Officer.

"8. The second-class reserves are to be formed from land outside the first-class reserves.

"9. Before selecting these second-class reserves—

(*a*) The demarcating officer is to inquire into, and admit a reasonable amount of free grazing for the village in which the second-class reserve is situated.

(*b*) He is also to see that a proper extent of suitable waste land is left outside the reserve for the extension of cultivation, say, enough for ten years' extension.

"10. Should it at any time be found that the land so set apart for extension of cultivation is not sufficient, the Collector shall call upon the forest officer to set apart a further extent of land for cultivation.

"11. The second-class reserves are to be marked by such boundary-marks as Government may approve of.

"12. In the event of any one wishing to cultivate any waste land outside the second-class reserves, the trees growing thereon shall be sold by auction before the land can be cultivated, provided that the Collector may, for the encouragement of cultivation, make a free grant of such timber trees to the intending cultivator.

"13. The following nine sorts of trees are to be preserved throughout the second-class reserve, not to be cut without special permission of, and at rates to be fixed by, the Forest Department :—

Teak.	Khair.	Babul.
Sisum.	Mango.	Char.
Teewus.	Anjan.	Mowha.

"14. Persons requiring large quantities of fuel for the purpose of the following trades :—

Country-liquor manufacturers,	Rosha-oil manufacturers,
Bangle-makers,	Chunam-makers,
Halwaies,	Kath-makers,
Charcoal-burners,	&c. &c.

shall take out yearly licenses at rates to be fixed by the revenue authorities. Wood taken under this rule shall not be sold by the licensee, and any licensee found selling wood shall forfeit his license. No other fuel fees shall be levied.

"15. All revenue derived from trees and wood of whatever sort in the second-class reserve is to be credited to forests, and all other revenue (grazing, &c.) is to be credited to land revenue.

"16. Free grants of timber are to be sparingly made by the Collector only to the poorer classes under circumstances of special need. Only unreserved timber to be thus granted, and the maximum grant to be five cart-loads. The Collector to grant a pass specifying the forest from which the wood is to be taken.

"17. Should it be found at any time that any portion of the second-class reserve is becoming denuded, the Forest Department shall have full authority to close for a year or term of years such part of the second-class reserve against cutting and grazing.

"18. The hill-forests in each of the five Sátpura talukas are to be divided into two portions—one a first-class reserve in which no cutting or grazing will be permitted, the other a second-class reserve. The first-class reserve to be marked off by boundary-marks. A register is to be made of all Bheels,. &c., who at present earn a livelihood in these jungles, and each registered Bheel to be presented with a wooden ticket, empowering him to cut unreserved wood and bamboos in the second-class reserve, and carry it to a specified market free of charge. Every such ticket-holder to consider himself bound to give assistance to the Forest Department by reporting all unauthorized cutting on pain of losing his ticket. Every ticket-holder to carry his ticket with him whenever employed in cutting wood, and to show it if called upon. The register of ticket-holders to be prepared by the demarcating officer in conjunction with the Principal Bheel Agent on the fullest information available, the principle being not to give tickets to any person who cannot show a fair claim on the jungle.

"19. For the convenience of all other inhabitants of Khandesh requiring a small quantity of wood for domestic purposes, a notice to be posted in each Mámlatdár's kutcherry, and every bazar, town, or village, in which a weekly bazar is held, stating that wood of all descriptions can be had by applying to a given Forest Inspector and pre-payment according to given rates. Every applicant, on payment of the rate, to be furnished by the Inspector with a pass, certifying that he has bought a certain number of trees of a certain sort, and to be accompanied to the jungle by a forest peon.

"20. None but ticket-holders, purchasers holding a pass from the Inspector, or recipients of free-grant passes, to be allowed to cut wood or bamboos in the Sátpura forests. Similarly, persons wishing to graze cattle, make charcoal, &c.,

within the second-class Sátpura forests must pay fees (as fixed from time to time) at the Mámlatdár's kutcherry, and take out a pass signed by the Inspector—ticket-holders being allowed to graze cattle, make charcoal, &c., in the second-class reserve by virtue of their ticket."

34. The Conservator of Forests, on the receipt of these rules, addressed Government in his letter No. 1609 of the 30th June 1876, pointing out that they were inimical to the forest interests of Government in Khandesh, and would necessitate a revision of the demarcation that had already been effected. That the description of the separation between first and second-class reserves was not sufficiently clear; that Rule 18 provided for a new privilege that had never yet been exercised, and that would operate most prejudicially against the forest interests and revenues of Khandesh; that the ticket-holders would have the entire monopoly of the market to the exclusion of the Forest Department; and that the result of these rules will be that, while there will be scarcely any forest revenue, the condition of the Khandesh forests will go from bad to worse.

35. But up to the close of the year no further orders had been passed.

36. Upon the recommendation of the Collector of Khandesh, Government, in their Resolution No. 1366 of the 2nd March 1876, directed that the Borai reserve of 17,000 acres, situated in the Nizámpur Petha of Khandesh, which had originally been sanctioned in their Resolution No. 179 of the 13th January 1873, should be abandoned. Their orders to this effect read as under:—

"Under all circumstances Government are of opinion that the reserve should be given up. There is no timber in it worth preserving; and from this fact, and the few khair trees in it being stunted and deformed, it appears very doubt fulwhether any timber of sufficient value to cover the cost of conservation will ever be raised in it. The wants of the neighbouring country in the matter of firewood appear, moreover, to be already amply supplied."

37. On receipt of those orders the Conservator went and visited the Borai reserve, and reported that it was a very promising property, and that it would be a mistake to give it up; that the trees, though small and crooked, would improve, and that in course of time better and straighter ones would appear. This forest is only now in its infant stage of regeneration, and is slowly recovering from the years of ill-treatment that it has suffered, and the misuse that it has been put to. Government, however, resolved

that they "had arrived at the decision, stated in Resolution No. 1366 of 2nd March, after careful consideration, and there is nothing in the report from the Conservator to induce them to alter it. Care should, however, be taken not to permit within the limits of the abandoned reserve the exercise of any rights not now existing."

38. Mr. Horsley, C.S., has been working throughout the year upon forest demarcation in this collectorate, and his working may be divided into three heads, viz.:—

I.—Inspection of certain talukas with the result of deciding that they contain no sites adapted for forest reserves.

II.—Inspection of certain other talukas with the result of selecting certain tracts adapted for first-class reserves, having maps made and information collected about these tracts with the view of proposing them for sanction.

III.—Consolidation of previous years' work in other talukas, namely, the building of boundary-marks round sanctioned reserves, the preparation of registers, and the investigation of rights of individuals, village communities, &c., in the reserves.

39. In all eleven talukas have been operated over in this way during the year, of which taluka Virdel comes under head No. I.; talukas Sirpur, Sháháda, and Taloda under head No. II.; and talukas Sauda, Chopra, Warangaon, Jámner, Páchora, Dhulia, and Pimpalner under head No. III.

40. Very extensive first and second-class reserves have been selected, mapped, and marked off in talukas Sirpur, Sháháda, and Taloda; six weeks to two months' work yet remains to be done in the last named. No mention of areas, &c., will now be made, but these reserves will be described when they are sanctioned by Government.

41. Boundary-marks have been erected round the reserves sanctioned in the Chopra, Páchora, Dhulia, and Pimpalner talukas.

42. Talukas Warangaon and Jámner contain a number of small babul reserves, which collectively constitute a valuable forest porperty: all of these reserves have been carefully examined, measured, and mapped; their areas and tree contents have been ascertained, and the trees have been valued. The result of this work is a proposal made by Mr. Horsley to place 48 of these reserves into the first class.

43. Several other important investigations have occupied Mr. Horsley's attention, such as the claim of the Kadam Bandi

to a large forest in taluka Sháháda ; the boundary between Khandesh and Burwani, which passes through dense forest, and between the Akrani Pargana and the Mewas State of Kathi.

44. Copies of the maps of five reserves have been received from the Photozincographic Office, Poona, and copies of five more are expected. Copies of the Sátpura reserves have been indented for from the Topographical Survey, and on their receipt a volume containing maps of 12 first-class reserves in Khandesh will be issued.

45. The sanction of Government has been published to the selection of forest reserves that was made by Mr. Horsley in Khandesh during the two seasons 1873-74 and 1875-76. As the Resolution of Government, No. 1962 of the 27th March 1876, conveying their sanction, gives an account of the situation and acreage of each reserve, a transcript of it follows :—

"These papers contain the history of the progress made in forest demarcation in Khandesh for two seasons, viz., 1873-74 and 1874-75. In the former year the work was interrupted owing to the deputation of Mr. Horsley, the officer in charge of the forests, on special duty in the famine districts of Bengal, and in that year comparatively little was done.

"2. The work has been divided by Mr. Horsley into three heads, which are treated of as follows :—

The consolidation of previous year's work in other talukas which comprises the erection of boundary-marks, the preparations of maps and registers, and the investigation of rights of individuals and village communities in reserves previously sanctioned. The Deo Mogra reserve in the Nandurbár Taluka was first selected by Mr. Sinclair, in 1872, and sanctioned by Government Resolution No. 179, dated 13th January 1873 ; but, since the boundary-marks were put up, no map or register had been prepared. In May 1875, accordingly, Mr. Horsley re-visited it, and having held the necessary investigations confirmed Mr. Sinclair's boundaries. He found that certain encroachments had been made on the portions of land taken from the villages of Shegwa, Wagda, Karanjáli, and Shehi; but these have been satisfactorily disposed of, and the reserve now contains 25,795 acres 27 guntas. The Collector reports that from his personal knowledge the proposals made by Mr. Horsley are judicious and thoughtful, and Government agreeing with him, sanction the Deo Mogra Reserve as an imperial reserve of the first class free of all grazing rights.

The Tapti reserve in Petha Nawapur, Taluka Pimpalner, was selected by Mr. Sinclair in 1872, and sanctioned by Government in their Resolution quoted above. But from Mr. Sinclair being unable to re-visit it, no boundary-marks were put up, and the reserve was left in the same incomplete state as the Deo Mogra one till Mr. Horsley's visit in April and May 1875. He then found, as was to be expected, that encroachments to a considerable extent had been made, and the work had practically to be done over again. He has also taken up some land of the adjacent village of Náráyanpur, erected boundary-marks, and decided on the rights of the villagers. Sanction to the Tapti reserve, which contains 9,020 acres as now defined, is accorded.

The Nesu River reserve in petha Nawapur, taluka Pimpalner, has been similarly treated with the Tapti one, and this reserve, containing 1,033 acres, is also sanctioned as a first-class reserve. Mr. Shuttleworth proposes to include a further strip of Náráyanpur along the Tapti so as to connect the Tapti and Nesu reserves; but Messrs. Sinclair and Horsley, having personally inspected the lands, are not of opinion that it is adivisable to do so, and as Mr. Ashburner is strongly against the proposal, Government are not inclined to accede to it.

The Amli reserve was sanctioned at the same time as those above named, and boundary pillars laid down by Mr. Sinclair. It appears, however, that a revision of the reserve became necessary owing to the well-founded complaints of the villagers, that the amount of land left for them was insufficient for their wants. This has now been satisfactorily done by Mr. Horsley, and the reserve as altered, containing 53,213 acres, is sanctioned, the right of grazing in the above ghát portion being allowed to the villagers.

The Borai River Reserve was thrown up, as recommended by the Revenue Commissioner and the District-Revenue and Forest Officers, under Government Resolution No. 1366, dated 2nd instant; and Government further agree with the Revenue Commissioner that it is unnecessary to take up the land between the Borai and Pan river Reserves. The last-named comprises 26,484 acres, and was first sanctioned in October 1873; but the work of erecting boundary-marks and completing maps and registers was not finished till the hot weather of 1875. Final sanction to the work, as completed, is now accorded.

The Conservator of Forests has apparently made it a matter of great favour to allow the villagers to gather the mhowra in these reserves on certain strict conditions; but Government concur with the Revenue Commissioner that they have the right to do so, the mhowra trees being their own property.

"3. The second head of this report is the reservation of second-class reserves. The Conservator of Forests writes at great length on the subject, and proposes reserves in Amalner, Erandol, Nasirabad, Virdel, and other talukas. The Forest Officer, Mr. Horsley, is strongly opposed to them, and is supported in this opinion by the Collector; while the Revenue Commissioner, to a certain extent, supports the Conservator of Forests by pointing out that, though Mr. Horsley declares there is no land suited for reserves of either class in the central talukas of the Khandesh Collectorate, he has apparently overlooked the Padmála plateau and the jungles between Párola and Kajgaon near the Talwara Bari. In any case the question of first-class reserves should be finally settled before that of second-class ones is taken up, but Mr. Horsley's attention should be directed to the sites pointed out by the Revenue Commissioner, with a view to reporting on their fitness or otherwise for reserves.

"4. The third head to be considered is the work done by Mr. Horsley in selecting new first-class reserves. Of these there are four proposed by him as follows:—

(*a.*) Láling, in the Dhulia Taluka, comprising 7,909 acres, and containing mostly anjan wood.

(*b*). Jowardhi, in the Bhadgaon Potha, taluka Páchora, comprising 5,023 acres 18 guntas, and containing the same sort of wood as the previously named one. The necessary investigations have been made by Mr. Horsley with the Assistant Collector in charge of the taluka, and maps and registers prepared. In both these cases sanction to the proposals made, viz., that Láling and Jowardhi be first-class imperial reserves, is accorded. In the former, however, as proposed by the Revenue Commissioner, the Láling villagres should be allowed to cut the grass, though they should be prohibited from grazing their cattle in the reserve.

(*c.*) Sauda Sátpura comprising 11,190 acres, and containing mostly anjan and teak wood.

(*d.*) Chopra Sátpura comprising 91,714 acres, and containing bamboos, teak, and most of the commoner

sorts of woods. The investigation of the lands required for these two reserves has been made by Mr. Horsley in conjunction with Major Probyn, the Bheel Agent in the Sátpuras. They have conducted their inquiries with care, and are satisfied that no injury will be caused to any one by these extensive reserves being taken up. In this opinion the Conservator of Forests and the Revenue Commissioner agree, and these two are sanctioned as first-class imperial reserves.

"5. Two subjects have been introduced by Mr. Shuttleworth in his report, which, strictly speaking, would seem to be uncalled for in the demarcation progress report: 1st, the treatment of the Bheels, which is already under the consideration of Government upon separate reports; and 2nd, the increase of forest establishment. This latter is, as the Conservator himself says, rather a question of administration than demarcation, and proposals in detail for re-organization of establishment should first be submitted before Government can pass any opinion on the subject.

"6. His Excellency the Governor in Council cannot conclude without expressing his thanks to Mr. Horsley for the untiring energy and judicious zeal and care which he has continuously shown in dealing from time to time with the most difficult questions of the forest demarcation and the treatment of the forest races in Khandesh."

46. Mr. Horsley has worked well throughout the season and has served the forest interests of Government in Khandesh most effectively; next season will, it is expected, see the demarcation of the forests of the collectorate completed at his hands—a work that will always reflect credit upon him, stamping him as an energetic, zealous, and careful officer, mindful of the interests of Government, and at the same time of the wild tribes who inhabit the forests, who exhibit great respect for him, as the Conservator has had opportunities of personally seeing.

47. The expenditure on account of forest organization in Khandesh during the year has amounted to Rs. 5,042-5-8, made up of—

Surveys	Rs.	3,904	11	10
Cost of boundary-marks ...	„	1,137	9	10

NASIK.

48. Government, in their Resolution No. 4253 of the 28th July 1875, sanctioned a proposal made by the Collector of Násik, that Mr. Charles, C.S., Acting Second Assistant Collector, should be placed

on the special duty of completing, in conjunction with the Assistant Conservator of Forests, the work of demarcating the forests of the Násik Collectorate.

49. It was stated in last year's Report, para. 31, that Government had at length consented to the Land Acquisition Act being put in force for taking possession of the 216 acres of occupied land required to complete the Bandardhara first-class reserve in the Igatpuri Taluka of Násik. But the Mámlatdár of Igatpuri succeeded in coming to an amicable arrangement with the land-holders, whereby they agreed to surrender their lands on receipt of Rs. 3,067 compensation, the payment of which was sanctioned by Government in their Resolution No. 70 of 5th January 1876. It was not, therefore, necessary to put the Act into motion. The official year closed before all the payments were made; but Rs. 2,965-12-0 were disbursed, and possession of the fields represented by this payment acquired: the remaining lands have been taken over subsequently.

50. The situation of this reserve is eminently favourable to conservation, though its size is small—1,320 acres; for its form is the section of a circle, the arc being bounded by a precipice, thus leaving only the chord, about 1½ miles, to protect. It contains chiefly teak coppice growing to a large size if allowed to do so, but at present much damaged by ill-treatment. The position of the reserve is at the foot of and between the hill-forts of Aonda and Putta, 8½ miles from the railway line, and 20 miles from Igatpur, station.

51. The following orders were passed by Government upon the selections of forest reserves made by Messrs. Wroughton, District Forest Officer, and Charles, C.S., Assistant Collector in the Násik and Igatpuri talukas :—

"Messrs. Wroughton and Charles' proposals are generally approved.

"2. In forest villages the Mámlatdárs should keep a register, made out in consultation with the Forest Department, of numbers that could, if waste, be conveniently included within forest limits, and instruct the village accountants to report when any of these are thrown up. The Forest Department could then be asked to see whether they, and in consequence any contiguous waste, cannot be added to the forest.

"3. Government do not approve the project for a large reserve at Mahiraoni, as none of the land could be acquired but under the Land Acquisition Act, and the measure would

cause very great dissatisfaction, which would manifest itself probably in constant mischief being done to the reserve.

"4. A separate report should be submitted on the project for a large reserve on the head-waters of the Godávari in Ganeshgaon and Málegaon, showing in detail what lands would be taken up in the different villages, and what lands would be left for the cultivation of those who might be deprived of their holdings.

"5. As regards dalhi cultivation, all that can, in the opinion of Government, be done is to confine the privilege of cultivating dalhi to the poorer inhabitants of the villages in which it is permitted, and not to allow strangers to come in and make dalhi, as is reported to be the case often. With reference to Tringalwári, reported on by Messrs. Charles and Wroughton in their letter No. 194 of 7th June 1875, the Collector should state whether there would be any objection to charging the Patel full assessment.

"6. 'Ráb' privileges should, Government think, be restricted as far as is possible, in the opinion of the Collector, without real hardship to the people. This point, however, like that of 'dalhi,' is one of forest administration, not demarcation.

"7. Similarly, the rules for grazing cattle in forests must be liberal, and yet must be strict enough to protect the young growth, &c., from injury.

"8. Government approve of the proposal made by Mr. Shuttleworth in para. 4 of his letter No. 622, dated 5th March 1875, for postponing the inclusion in the forests of certain occupied lands within forest limits till they are resigned by the present occupants. In special cases, when the Collector approves, Government will not object to the Land Acquisition Act being put in force.

"9. Government agree with the Conservator that waste lands not now to be included in forests, should not be given out for cultivation when it is at present tolerably thickly covered with jungle, unless the Forest Department on reference consider it advisable to cut and remove the timber in the first instance."

52. The results of the demarcation are not very satisfactory; it was not found possible to make any large compact reserves. The area available for reservation before the selections commenced was represented by the following figures :—

	Acres	Guntas.
Násik Taluka	18,686	30
Igatpuri Taluka	37,237	31¾
Total...	55,924	21¾

Of this the demarcating officers proposed to throw up—

	Acres.	Guntas.
In Igatpuri	10,059	2¾
In Násik	4,350	22
Total...	14,409	24¾

and to include lands not formerly available—

	Acres.	Guntas.
In Násik	6,215	15
In Igatpuri	4,895	13¼
Total...	11,110	28¼

53. The reserves, as finally sanctioned, contained 52,625 acres 25¼ guntas, or nearly 82¼ square miles, distributed thus: Násik 20,551½ acres, Igatpuri 32,074½ acres. Of these lands, 1,527 acres are still in occupation, and can only be acquired when the occupants are willing to relinquish them.

54. These reserves are all of the second class, and are consequently burdened with the rights of ráb orgrazing, or both. The teak growing in them will, however, find a ready local market, and the other wood will sell for firewood on the railway, or at Trimbak or Násik.

55. In their Resolution No. 750, of the 3rd February 1876, Government sanctioned the selections made by the demarcating officers in the Sinnar Taluka of Násik, whereby 3,910 acres 19 guntas were placed into forest reserves. These lands are divided into six blocks.

56. But as it appears that the waste area in this taluka is very large, consisting of—

5,412 acres assessed waste.
96,327 acres unassessed waste.

1,01,739 acres total waste.

nearly the whole of which has been excluded from forests, though the demarcation officers report that a portion of it is covered with jungle; the Conservator recommended that further selections should be made with a view to some of the bare hill-slopes coming under the operations of the Forest Department for improvement by broad-cast sowings, which system of "reboisement" has been eminently successful in other parts of the division. The demarcating officers were thereupon ordered by Government to state whether they consider it advisable to reserve these lands, and up to the close of the year their report had not been received.

57. Sanction was accorded by Government in Resolution No. 1066, of 18th February 1876, to the proposals of the demarcating officers to set apart for first-class forest reserve in the Galna Mahal, of Málegaon Taluka of Násik, lands to the extent of 10,373 acres, but of which 530 acres and 25 guntas are occupied. Sanction was also given to purchase, for Rs. 1,070, 474 acres 31 guntas of this land, and Government directed that the action of time should be awaited for the obtainment of the remainder when the ryots in the ordinary course of their proceeding would give up their holdings after having exhausted them for fresh lands elsewhere.

58. This reverse contains chiefly anjan (Harwickia binata) which promises to yield good timber when properly looked after, but at present all but the most inaccessible parts of the forest are damaged beyond redemption of the existing crop by ill-treatment. Málegaon town is 20 miles off. The existing trees will sell there and on the railway, 44 miles off, at remunerative prices, for use as firewood.

59. The following orders were issued by Government in their Resolution No. 1225, of the 22nd February 1876, sanctioning the selections of lands for forest reserves made by the demarcating officers in the Kálwan and Satána talukas of Násik :—

> "These papers relate to the demarcation of forests in the old Báglán Taluka, now divided into Kálwan and Satána talukas. Owing to the difficulty of finding suitable lands of sufficient extent for the formation of a first-class reserve in any part of this district, without removing entire villages with their inhabitants and buying up cultivated fields required for the purpose, the demarcating officers propose that the whole of the lands, now selected by them in 137 villages of the Kálwan Taluka and 111 villages of the Satána Taluka, should be set apart as second-class reserves. The entire area of the selections, which, under the circumstances of the district, are unavoidably very much scattered and divided, amounts to

1,94,466 acres, while for extension of cultivation 1,04,038 acres of unoccupied arable land are still left available. Government, concurring with the Revenue Commissioner that the amount of land to be reserved does not appear to be excessive, sanction the formation of the proposed second-class reserves.

"2. The Bheel inhabitants in the selected lands have the right to cultivate one acre per family by dalhi rent-free. The demarcating officers have found it impracticable to set aside for dalhi cultivation a separate area in the manner prescribed in the Government Resolutions noted in the margin.* They, therefore, propose to allow this kind of cultivation in the selected reserves in 62 villages, and suggest that, either now or after a few years, assessment at the rate of 12 annas per acre, be levied from the dalhi cultivators. This is the rate prescribed in paragraph 4 of Government Resolution No. 852, of 11th February 1875, for the first year, one-half of it being fixed therein for the second year. The Revenue Commissioner, N. D., objects to the 12-anna rate, on the ground of its being higher than that levied from skilful cultivators of good lands in the Desh villages. Government do not think it advisable to sanction the proposed rate for the present, and it may be held in abeyance for three years. Whether it should be levied after the lapse of that time is a question for future consideration, depending upon the result of the concession now allowed.

*No. 852 of 11th February 1875 and No. 1321 of 3rd March 1875.

"3. Government approve of the demarcating officers' proposal to prohibit dalhi in future in the six detached villages noted in the margin, and in the block selected by them between Saptasring and Pedia Dongar.

Wadi Budruk. Mohobari.
Gosnan. Karmála.
Golakal. Warul.

"4. Government also approve of their recommendation to continue to the Bheels the right hitherto enjoyed by them of cutting and carrying to certain bazaars (noted in Appendix E of their Report), free of charge, head-loads of all but reserved kinds of trees, the usual fee being levied from the purchaser of the wood. The demarcating officers propose that teak, blackwood, and babul should only be reserved. The Conservator protests entirely against the concession and demands that, if it is granted at all, the number of reserved trees should be 12 instead of 3. Government, on the whole, agree with the Revenue Commissioner that the Forest Department should be allowed to reserve four kinds of wood, and that the rest should

be free to the Bheels for the above purpose. Mr. Ashburner suggests that the amount of the tax on head-loads, levied from the purchasers, should be restricted to 5 per cent *ad valorem*. Before passing final orders, Government desire to be informed of the rates hitherto existing.

"5. The general population of the villages concerned should be allowed, as proposed by the demarcating officers and recommended by the Revenue Commissioner, to continue to exercise in the selected reserves the rights of—

(1.) Cutting wood for ráb, with the exception of the 12 reserved kinds of wood.

(2.) Free collection of minor forest produce, such as gum, mowra, hirda, &c.

(3.) Grazing cattle free, subject to the proviso that portions of the forests are to be closed to grazing in rotation, to permit of their being planted. Wandering graziers should be required to pay the Wancharai tax at present rates.

"6. The Revenue Commissioner objects to the proposa of the demarcating officers to make an infraction, by ráb-cutters of the rule regarding the reserved kinds of wood punishable by a temporary suspension of the right to cut ráb, on the ground that a prohibition of ráb is a prohibition of all cultivation, and Government concur with him that the punishment proposed is severe. The patel of each village will, however, be held responsible, on pain of dismissal, for any infraction of the order, unless he immediately reports it, and takes the necessary steps to prevent such infraction in future.

"7. As regards the forest rights of inámdars of the 37 villages, of which the lands are included in the proposed reserves, Government approve of the suggestion made by the Revenue Commissioner, that the statement he has had lately prepared showing these rights as specified in the sanads under which inám villages are held should be the guide till the entries therein made are set aside by a decree of the High Court.

"8. Government approve of the Revenue Commissoner's suggestion that the ghát rakhwáldars of Muler, 90 of whom receive Rs. 2 per month to protect the pass, should, without being placed entirely under the Forest Department, be utilized as foresters. They should not be liable to dismissal without the orders of the Magistrate.

"9. The demarcation of 10 khalsa and 2 inám villages scattered about amongst Sorgána villages, which has yet to be done, should be undertaken during the current season, if practicable, by the Dang Survey Party. The work of fixing the exact boundaries of the forest reserves of 11 villages of the Wani Máhál, and of including in the reserve a certain tract between the villages of Behowri and Duli, should also be completed during the current season."

60. According to the above orders the forest reserves of these two talukas will consist of 1,94,466 acres and 18 guntas, distributed thus:—

	Acres	Guntas.
Kálwan	86,526	22
Satána	1,07,940	13

61. It will be seen that in 62 villages the Bheel inhabitants are permitted to make one acre of dalhi cultivation per family rent-free every year in any portion of the forest reserve that they may select; that they are allowed in all the reserves to cut and take to markets for sale free of charge, in head-loads, wood of all but four sorts of trees, one of which is not to be found in the reserves; that they may lop trees for ráb of all but 12 kinds; and that minor produce is free to them to take at pleasure.

62. Under these conditions it is a misnomer to call these lands 'reserved forests,' and it is difficult to understand how they can be managed burdened with these destructive privileges, which are not only inimical to forest conservation on the broad meaning of the term, but to the existence of trees.

63. The destruction of trees on the crest of the gháts and on the rain-attracting hill-slopes in these two talukas which came under the notice of Dr. Brandis, Inspector-General to the Government of India, when he visited the locality in 1870, and called for remark by him (*vide* his report to the Bombay Government, No. 208, dated 18th June 1870, para. 34) will, under these arrangements of forest demarcation, be completed. Great progress has already been made, and very soon the hill-slopes will become entirely uncovered, incapable even of retaining the slightest moisture that falls upon them.

64. The effects of the denudation of trees that has already been made have been felt with deplorable experience. The great flood of September 1872, by which so many lives were lost and cattle and property destroyed in Khandesh and Násik, may be traced to the destruction of vegetation on the slopes of the Kálwan and Satána hills, where several large streams that traverse in their courses the level country between the Sahyádri range and the Sát-

málas east and west and the Saptasring and Tapti north and south, find their head-waters; the absence of trees on their drainage slopes allowed the heavy rain that fell upon them to run off in torrents without percolating into the earth, with the result that the rivers and channels were filled by sudden floods, without timely warning being given, their banks were submerged, villages and houses were swept away, and life, human and animal, sacrificed. Had the slopes of the hills been covered by trees, the water would have been arrested, a portion of it would have been sucked into the soil, and the portion that flowed off would have found its course stayed continually by stumps of trees, bushes, &c., every here and there, so that the filling of the rivers and water-courses would have been more gradual than it was, allowing time to the people to take measures for the protection of their property and for saving their own lives.

65. In these two talukas the ruins of bandharas or dams across what were perennial streams are still to be seen in many directions; but the reservoirs are now silted up, and the dams are broken by the force of unrestrained mountain torrents. These relics point to the high state of cultivation and prosperity that formerly existed when the hills grew the forests that nature had placed upon them, and intended the hills to be of use for and before man with sinful improvidence uprooted the trees, desolated the hills with fire, and the axe in vain endeavours to grow crops of miserable grain.

66. A large population existed where now the country is comparatively depopulated, the soil in the plains where nature intended cultivation to flourish is impoverished, the cattle are few in numbers and the crops are very poor; and this is the result of acting against the decrees of Providence and the laws of commonsense. But forest demarcation is intended to remedy barbarous applications of this sort by removing the axe and fire, and taking the hills into reserves, for increasing the vegetation upon them by seed-sowing and planting. Such, however, has not been done in Satána and Kálwan, the Bheel is still allowed to commit destruction on the hill-slopes, and cause the cultivator of the plains to suffer.

67. Messrs. Charles and Wroughton were engaged, from the 1st April 1875 to the rains of 1875, in inspecting the lands, selecting the reserves mentioned above; and on 1st November 1875 these officers again took up the work in Yeola Taluka, the inspection of which with that of the Nándgaon, Málegaon, and Chándor talukas was completed about the end of February. Mr. Charles was then called away on revenue work, and Mr. Wroughton had to attend his wood sales in the Peint States; consequently no further demarcation took place during the year.

68. No forest boundaries have yet been erected, but this work will be taken in hand next year in connection with the reserves that have been sanctioned by Government.

69. The cost of the demarcation in Násik during 1875-76 has aggregated Rs. 4,499-12-3, made up of—

	Rs.	a.	p.
Special batta to Mr. Charles, Assistant Collector	1,005	0	0
Pay of subordinate establishment	377	0	0
Contingencies	152	0	3
Compensation paid for land	2,965	12	0
Rs...	4,499	12	3

70. Messrs. Charles and Wroughton have travelled over a very considerable area of country, and have selected very extensive reserves, paying much care to their work. But it cannot be said that the arrangements they have effected are very satisfactory in a forest point of view; they have burdened the reserves with many rights, which are not to be found existing in the adjoining collectorates of Khandesh and Ahmednagar north and south, or even in the Poona Collectorate or any other part of the Deccan, making it difficult to protect the reserves, and almost impossible to improve them.

AHMEDNAGAR.

71. It was mentioned in para. 32 of last year's Report that Mr. Narayen Anant Okidway, Sub-Assistant Conservator of Forests and District Forest Officer, had met Mr. Loch, the First Assistant Collector, in February 1875, and commenced the demarcation of the Akola and Sangamner forests. This work was completed in March, and the following orders were passed upon it by Government in their Resolution No. 1868 of the 23rd March 1876:—

> "As no objection is offered by the Collector to the proposals of the demarcating officers for 118 out of the 125 villages referred to in these papers, the proposed forest reserves in the former may be sanctioned. In seven villages the Collector states that the average area per head left for cultivation is too small. In the case of Nos. 16, 18, and 53, he states that more land should be given for cultivation if any can be found fit for the purpose. In other villages in which he proposes no alteration, he speaks of equally small areas being sufficient because the land is of good quality. It is evident,

therefore, that in the case of the seven villages, the proposed settlement in which both the Revenue Commissioner and the Conservator of Forests desire to see carried out as in the other villages, Mr. Boswell does not speak from personal knowledge. The settlement may, therefore, accordingly, be carried into effect, unless the Collector is satisfied from further inquiry that there is a probability of further extension of cultivation, and there is really no culturable land from which to meet the want. In that case he should submit a detailed report of what land is now cultivated, with sketch maps showing the precise numbers he considers it would be advisable to reserve for cultivation in addition to the land left by Messrs. Loch and Narayen Anant.

"2. Government quite concur with the Conservator and Revenue Commissioner that there will be no occasion to have the whole of the ground proposed for inclusion in the forest reserves gone over and examined for the third time.

"3. With regard to the proposals in Statement No. III. for the acquisiton of land, all numbers which the occupants have agreed to relinquish may be at once taken up. In the case of the three numbers, the occupants of which have not agreed, the Collector should be authorized to offer up to twenty years' assessment. If they will still not come to terms, the usual draft notifications for their acquisition, under Act X. of 1870, should be forwarded for publication in the *Government Gazette.*

"4. Cultivation may be allowed to continue in the number contained in Statement No. IV. after boundary marks have been erected round them to prevent encroachment, as recommended by the demarcating officers. Any number thrown up should at once be included in the reserves.

"5. In the few villages in which dalhi (or kumri) cultivation has hitherto been practised, it should be allowed to continue after personal inquiry, by the Assistant Collector in charge of the taluka and the Forest Officer, into the actual wants of each village after the method laid down for Satara in Government Resolutions No. 852 of 11th February 1875 and No. 1321 of 3rd March 1875. Existing grazing and other rights in the reserves should be carefully inquired into, and continued, as far as may be found to be absolutely necessary, with the Revenue Commissioner's sanction. Power should be reserved to close entirely any reserves that may require to be conserved temporarily for planting purposes.

"6. If the numbers in the beds of rivers, referred to in para. 13 of the demarcating officer's report, are uncultivated, they may be handed over to the Forest Department, who will cut or preserve the trees on them as may seem best in the interests of Government. If the numbers are cultivated, such of the trees only as may be the property of Government should be placed in charge of the department.

"7. The Conservator should, in consultation with the Collector, make the best arrangement practicable for the collection, for departmental sale at convenient localities, of the hirda nuts referred to in para. 18 of the Report, through the inhabitants of the villages themselves, paying them for the purpose as liberally as they are now paid by the farmers of the right."

72. The results of this demarcation of the Akola Taluka, which contains 676 square miles, or 2,63,320 acres, distributed over 155 villages with 139 hamlets inhabited by a population of 60,591 souls, are that 93,289 acres have been placed into forest reserves, of which 45,819 acres bear teak and 47,470 evergreen on the crest of the ghâts.

73. The demarcation has been made with great judgment and care, and reflects much credit on the officers who carried it out. Every effort has been directed to keep the watershed of the ghâts covered, and a large continuous tract of land on the crest of the ghâts has been placed into first-class reserve, including on the south the slopes of Harischandragarh, which rises up to a height of 4,700 feet above the sea, and further northward of the natural hill-fortresses of Alang, Kalang, and Bilangar, with Kalsobai, the mountain of the forest goddess, towering 5,400 feet to the skies, the loftiest landmark on the great Western Ghât range. The scenery on the Akola Ghâts is grand and picturesque, possibly more so than anywhere else along the whole Sahyâdri range. These natural fortresses stand out in conspicuous grandeur above the surrounding hills, and their castellated scarps of grey basaltic rock that have withstood the assaults of weather and of the crumbling hand of time for ages offer sheer unscalable precipices of bare rock devoid of vegetation, except here and there in a nook or crag where some hardy fern bracken or wild lichen has found roothold. The date palm finds its home on the summit of the highest breaks overlooking its other congeners in the vegetable kingdom; the lower slopes are less bold and determined in outline, and are softened down by a covering of such evergreen forest as has escaped the fire and axe of the dalhi cultivator, and will now, under the management of the Forest Department, be made to serve the purposes for which nature placed trees on the slopes of lofty hills.

74. The teak forests of Akola contain an inexhaustible supply of rafters, which eminently require the axe for their improvement; while the beds and banks of the rivers have the jambosa solicifolia growing upon them, the wood of which furnishes excellent material for building, and is in much request.

75. In the Párner Taluka 401 acres 10 guntas and in Newása 8 acres and 15 guntas were added to the reserves by sanction of the Collector.

76. The District Forest Officer, Mr. Narayen Anant Okidway, has examined all the waste lands of the Ahmednagar Táluka, and has submitted a report accompanied with maps of each block of such as are desirable of inclusion in forest reserves. These papers have been referred to the First Assistant Collector in charge of the taluka for his opinion and report as to whether any objections in the interests of cultivation and the people offer to their reservation as forests.

77. No boundaries of forest reserves have been laid down, because the sanction of Government to them was accorded too late in the year for the work to be undertaken.

78. The total expenditure incurred in this collectorate on the organization of forests aggregated Rs. 314-3-9, consisting of

	Rs.	a.	p.
Special batta to the Assistant Collector co-operating in demarcation	130	0	0
Other survey charges	184	3	9

POONA.

79. As reported in para. 35 of last year's Report, Mr. Johns, First Assistant Collector, co-operating with Mr. Wallinger, Deputy Conservator, during the hot weather of 1875, selected forest reserves in 102 villages of the Khed Taluka; and Government, in their Resolution No. 7096, of the 17th December 1875, passed the following orders on this work :—

> "The proposals for the demarcation of forests, as submitted by Messrs. Johns and Wallinger and approved by the Collector and Revenue Commissioner, and also the proposals for compensation for land taken up, are sanctioned.
>
> "2. The work has evidently been done well and carefully by Messrs. Johns and Wallinger, and Government hope that the remaining demarcation will, as anticipated, be completed in a couple of months.

"3. Where gúracharan or free grazing land has now been converted, Government desire that in such cases as the Collector, with the concurrence of the Revenue Commissioner, may deem necessary, the villagers may be allowed to graze their cattle free in the forests, subject only to such restrictions as are required to protect the growth of young wood, and to occasional closure."

80. The 102 villages worked over, contain 2,09,830 acres of land, out of which 51,365 acres, or 80¼ square miles, have been formed into forest reserves of the first class, leaving outside for the use of the villagers :—

	Acres.
Assessed fields	1,16,823
Unassessed waste	30,087
Gairan (grazing)	7,226
Wancharai (grazing sold)	643
Kuran	469

81. The selections of land reported to have made in para. 33 of last year's Report in the Purandhar Taluka by the District Forest Officer, Mr. Wallinger, Deputy Conservator, were examined by the Second Assistant Collector in charge of the taluka; but the report of this officer differed so much, and in so many important points from the proposals of this department, that it was considered necessary that the work should be gone over again by both officers in company. As Mr. Wallinger was employed demarcating in another taluka with the First Assistant Collector, this was not practicable during the year under report, and has consequently been postponed to another season. It will be completed during 1876-77.

82. The Bhimthari and Indápur forest selections were likewise visited by the Assistant Collector and reported upon by them, and the papers are now before Government.

83. The 89 villages of the Khed Taluka that had remained unvisited at the close of last year were inspected by the Deputy Conservator, Mr. Wallinger, in conjunction with the First Assistant Collector, Mr. Johns. Reserves were proposed in 64 villages, maps of which have been made, and the demarcation report is under preparation.

84. It was noted in para. 39 of last year's Report that the forest demarcation of the Máwal, Junnar, Sirur, and Haveli talukas that had been conducted by the late Mr. Bell, First Assistant Collector, without consulting the Forest Department, had been revised

by the Deputy Conservator, who had prepared lists and maps of additional lands for inclusion in forests situated in 178 villages. The Revenue Commissioner, S. D., has approved of these proposals, and they have now been sent to the Assistant Collectors for report.

85. It may thus be confidently expected that the year 1876-77 will see the demarcation of forests in the Poona Collectorate finally completed, in a way that will give satisfaction to the forest interests of Government, and at the same time will tend to the benefit of the people and the good of the district.

86. The work of erecting boundary-marks will now be undertaken.

87. The cost of forest organization in Poona during the year has cost Rs. 1,652-11-7, consisting of—

	Rs.	a.	p.
Special batta to the Assistant Collector ...	920	0	0
Pay of survey establishment, &c.	697	7	7
Contingencies	35	4	0

SATARA.

88. The inspection of the Ghát Matha villages, stated in para. 45 of last year's Report to be undertaken by the Conservator and Mr. Winter, C.S., Second Assistant Collector, with a view to the demarcation of forests and to the settlement of the kumri cultivation question on the Satara gháts, was completed. Forty-six maps of reserves and 5 taluka index maps were prepared by the Conservator and submitted to Government, but orders were not passed on the proposals until after the close of the year.

89. The forests of the Satara Konkan Ghát Matha consist of a narrow belt of evergreen forest, varying from 6 miles in parts to 20 and 25 in others in breadth, and is of two descriptions—

1. High timber forest or primeval forest.
2. Scrub or thicket forest.

90. The first description is to be found round the base, and occupying the slopes of hill-forts ; in sacred clumps round temples or " gods " ; under rocky precipitous cliffs difficult of access ; in deep ravines or gorges in the hills where kumri either could not be carried on with ease and profit, or else was kept out by superstition. These forests are known under the local name of " Dhungs," and are scattered over the gháts in places. Here and there they offer a long continuous tract of splendid high forest—for instance, between the Kondi Ghát on the Kolhápur frontier to the Malá Ghát;

in the Pátan Taluka round Juagli Jyegarh and the great Wásotá Dhung of Mhét Indoli; along the Koyana and Kondate valleys smaller dhungs are likewise to be seen.

91. The valuable timbers that predominate in this description of forest are—

1. Húm—guatteria cerasoides,
2. Hirda—terminalia chebula,
3. Yehela—terminalia belerica,
4. Ran phanas—artocarpus hirsuta,
5. Makar limb—atlantia monophylla,
6. Hulda—chloroxylon swietenia,
7. Wild mango—mangifera spec,
8. Wúmb—nephelum longinium,
9. Nergúr—vitex.
10. Anjani—memecylon tinctorium,
11. Ghát palm—caroyta urens,
12. Warrus—bignonia quadrilocularis,
13. Húra—symplocos racemosa,
14. Kúmbha—careya arborea,

with varieties of lagerstræmia terminalia; and canes and bamboos likewise abound.

92. The second description of forest is that which has grown upon the sites of abandoned kumri, and may be classed as scrub thicket or low-tree forest. The jambúl of several varieties is the chief tree having for its constant associates—the gehela (randia dumentorum), the písa (actinodaphne lanceolata), a small species of bamboo called cheeva, largely used by basket-makers, and many other trees.

93. The rainfall on the Satara gháts may be accepted at an average of 200 inches, and vegetation is consequently very luxuriant. The reserves under this rainfall only require to be well protected and systematically treated, the axe being freely used for improvement to develop into magnificent timber forests. The forests are not burdened by any private rights, and they can be maintained as imperial reserves in the strictest meaning of the term.

94. The scenery on the Satara Ghát Matha is grand and magnificent; all along the range huge masses of basaltic rock of castellane appearance stand out in bold relief against the sky, looking like giant sentinels guarding the extensive forests surrounding them. While on the western side, below them, lies the country of the Southern Konkan, spreading out like a map with its numerous creeks and rivers appearing like silver threads twining in between the brown dusky tree-denuded hills; in the far distance the horizon

is bounded by the sea, which gleams and glistens under an afternoon sun. The ground is historic: every hill and bold rugged fort fashioned by the hands of nature constitutes a chapter in the history of the Mahrattas. The present inhabitants of the neighbouring villages are the descendants of the old Gadkaries, or former custodians of the forts, who, in the days of the Mahratta glory, held this wild country against the utmost power of Bijápur or Ahmednagar; and it is to these hill-forts, the chief of which are Prachitgarh, Bahiraogarh, Jungli Jaogarh, Wasota, Mymandangarh, Boineandangarh, Makarandgarh, Pratápgarh, Chandangarh, Kamálgarh, Pándaogarh, Kinjalgarh, that the existence of forests is attributable, for the old Gadkaries used every endeavour to make the approaches to their fastnesses wild and untrackable.

95. On completion of the kumri inquiry and ghát forest demarcation the Conservator, in conjunction with the First Assistant Collector of Satara, made a thorough inspection of five-mile forest of Mahableshwar, which extends through the lands of 78 villages; the boundaries between forest and cultivation were walked over, and finally a joint report was submitted to Government, recommending that these forests be handed over to the care of the Forest Department, as under present arrangements they are steadily and visibly disappearing. No orders had been passed in the matter before the close of the year.

96. The expenditure incurred upon forest organization during the year in this collectorate amounted to Rs. 337-15-6, consisting of the pay of a measurer and contingent expenses, likewise special batta to the Assistant Collector who demarcated.

SHOLA'PUR.

97. As stated in para. 42 of last year's Report, the Assistant Collectors in charge of the respective talukas, in conjunction with Mr. Govind Ramchandra Máhájan, head forest inspector, visited several kurans and waste numbers suitable for transfer to this department for planting; and the Collector of Sholápur recommended to the Revenue Commissioner, S. D., the transfer of 12,627 acres situated in 52 villages in six talukas, but up to the close of the year final orders had not been passed regarding them.

98. The expenditure in forest organization during the year amounted to Rs. 69-1-1, made up of

	Rs.	a.	p.
Cost of boundary marks	16	2	0
Surveys	52	15	1

SURAT.

99. The forest reserves proposed for the Mándvi Taluka, mentioned in para. 50 of last year's Report, were inspected during the year by the Assistant Collector, Mr. Gladstone Turner, in conjunction with Captain MacRae, Deputy Conservator of Forests; all the boundaries were gone over, and other necessary incidental inquiries were made, when it was found desirable to make some slight alterations to the original proposals, whereby the reserved area, instead of measuring 46½ square miles, contains 46¼, or a quarter of a square mile less.

100. Reports on the reserves, as finally determined, accompanied with maps, were submitted to the Revenue Commissioner, N. D., who stated in reply that the sanction conveyed in Government Resolution No. 2825, of the 4th June 1874, covers the slight modifications of the boundaries that have been made, and that further orders of Government were not necessary.

101. The reserves, of which a brief description was given last year, are seven in number, and contain, respectively, the following areas:—

				Acres.
I.—Main reserve	...	...	... ...	23,680
II.—Makanjar reserve, as originally proposed...				1,054
III.—Bhakae	do.	do.	...	545
IV.—Vareth	do.	do.	...	1,400
V.—Regama	do.	do.	...	1,402
VI.—Kalmui	do.	do.	...	1,295
VII.—Patawadi	do.	do.	...	253
			Total...	29,629

or 4,629 square miles.

102. These properties have now been taken over by this department, and negotiations are in progress for obtaining, by exchange or otherwise, the whole or parts of the five inám villages—Karutha, Chandanpur, Amalchuni, Kevdi, Ambapur—which own scarcely any cultivation, and are situated in the midst of the forests.

103. No permanent boundaries have yet been laid down, as the sanction to the reserves came too late for any work of this kind to be undertaken.

104. The Deputy Conservator was likewise engaged during the year in demarcating second-class reserves in the Mándvi Taluka, but no report of this work has yet been made; it will be completed

this year, 1876-77, and with it will be finished the forest demarcation of the Surat Collectorate.

105. The cost of the demarcation in Surat Proper during the year amounted to Rs. 845-3-8, made up of

	Rs.	a.	p.
Pay to surveyors...	658	13	2
Pay to peons	24	4	3
Cutting chain lines	118	8	9
Carriage of instruments, &c.	14	7	0
Contingencies	29	2	6

THE DANGS.

106. The survey, which it was stated in para. 51 of last year's Report was directed by Government to be undertaken, was commenced, on the 1st April 1875, by Mr. Dalzell, Assistant Superintendent of the Guzerat Revenue Survey. In describing his work I must borrow from the able report made by Nicholas Beyts, Esq., Acting Superintendent of the Guzerat Survey:—

> "Mr. Dalzell accomplished 12 circuits; the linear distance measured was 73 miles, enclosing an area of 19,309 acres. The greatest linear error was under 5 links in 1,000, and the greatest angular error under 3 minutes in 5 stations. The map has been constructed on a scale of 20 gunter chains to 1 inch, or 4 inches to the mile. * * * * *
>
> "The difficulties attending this survey cannot be denied. Besides the impenetrable nature of the country there was a total absence of labour in the Dangs, so much so that the efforts of the forest officers and the Dang Dewan sent by the Political Agent to assist the survey failed to produce a single Bheel. Mr. Dalzell had, therefore, to engage men in the Surat Collectorate, and as soon as they saw the country threatened to return if not paid at the rate of 5 annas per diem. In addition to this the unhealthiness of the place was a serious obstacle to progress. Mr. Dalzell's men were breaking down rapidly, and he had to beat a retreat on the 31st May, his field season having only lasted 2½ months."

107. The cost of this survey to the Forest Department was Rs. 5,305-15-4.

108. The work was again resumed from the beginning of March 1876 by Mr. LeMesurier, of the Guzerat Revenue Survey

Department, and the outturn of the hot weather of 1876 will be more than double that of the season 1875.

109. Considering that Captain MacRae, Deputy Conservator in charge of the Dangs, is an accomplished surveyor, and formerly served in the Revenue Survey Department for some years, it would seem that a much more economical and equally efficient arrangement for the further prosecution of the Dang Survey would be to entrust the work to Captain MacRae, placing the surveyors under his orders. This would save this department the cost of a highly paid European officer of the Survey Department. But it would be necessary to provide Captain MacRae with an assistant to look after the forest work in Mándvi and Surat Proper while he himself is engaged in the Dangs. Under any circumstances an assistant is necessary, whether Captain MacRae looks after the survey work or not.

110. The expenditure on forest organization in Surat has amounted to Rs. 6,161-3-0, made up of cost of surveys Rs. 6,151-3-0, compensation for land Rs. 10.

NORTHERN FOREST CIRCLE.

111. No actual increase or decrease of area has been made in this circle. But selections have been made of a forest reserve of 2,000 acres to be formed in the villages of Urwadia, Kevadiah, and Kurjiah, in the Kálol Taluka; of a reserve of from 10,000 to 12,000 acres in the Hálol Taluka; also of a new reserve of about 1,600 acres in the Godhra Taluka. All these proposals are before the Governor-General's Agent for the Panch Máháls, who had not passed a decision upon them before the 31st March.

112. The greater part of the tree-growing lands in Dohad and Jhálod talukas have likewise been examined and reported upon by the demarcating surveyor, Mr. Walabrám Mulji, during the year, with a view to proposals for reserves being submitted next year.

113. The Bombay and Baroda Railway has been extended 19½ miles from A'nand to Dákor, and is open and working; a further extension of 12 miles to Páli, on the bank of the Máhi opposite to Godhra, is now under construction, and a proposal is under consideration to take the line on from Páli 19 miles to Godhra. If this is sanctioned, the Panch Máhál forests will be placed in direct communication with the Guzerat markets, and will become the chief source for supplying Guzerat with firewood and teak poles; therefore it behoves the Forest Department to take time by the forelock, and provide for the great demand that will very shortly be made

upon the reserves. 44 square miles have been already reserved in the Godhra Taluka, but the area of unreserved forest is considerably larger, and the reserves are, therefore, capable of being extended. Now is the time to do this work; as soon as the railway opens it will bring a troop of agriculturists into the Panch Máháls to tap its virgin soil; and where at the present day it is possible to obtain jungle land for the taking, a year or even six months hence it will be unobtainable without payment of compensation; fields will crop up all over the place, preventing consolidation of forest area. There is land more than enough, excluding the extra lands that the Forest Department may ask for to increase its reserves, to meet all the applications that will probably be made for the extension of cultivation; and by increasing the reserves and lessening the area of unreserved forests, the new cultivation will be more concentrated instead of being scattered like islands in a sea of trees.

114. The boundaries of the Kawali, Sampa, Kalesuri, Bandeli, and Betsa reserves have been defined during the year by a trench 18″ wide and 6″ deep and a cleared ride of 40 feet; nearly 40 miles of boundaries have thus been laid down.

115. The expenditure on forest organization in this circle during the year has amounted to Rs. 1,349-3-11, made up of

	Rs.	a.	p.
Cost of boundary lines	713	3	11
Cost of surveys	636	0	0

116. It will be seen from the foregoing history of forest demarcation during 1875-76 that this most important work is receiving every possible attention; in every collectorate progress has been reported, and in some the work has approached to completion. The Conservator, two Deputies, and five out of seven Assistant Conservators in charge of districts have been actively engaged upon the work; while, in addition, two special officers have likewise devoted their time and energies to it.

117. The cost of forest organization in the Northern Division during 1875-76 is distributed as follows:—

	Rs.	a.	p.
1. Cost of demarcation lines and boundary marks or pillars	2,042	8	9
2. Cost of forest surveys, including special batta to Assistant Collectors ...	17,142	12	1
3. Compensation paid for land	6,377	11	3
Total Rs...	25,563	0	1

CHAPTER III.

PRIVATE RIGHTS.

118. Several important orders bearing upon the question of the exercise of private rights in forests, of rights over trees on private lands, and of rights over forest growth in co-shared villages, have been published during the year, and some civil suits in connection with rights of the above descriptions have been contested and decided.

119. Government Resolution No. 1941, of the 1st April 1875, in the Revenue Department, directed, in connection with the Sagargarh reserve of Alibág in Kolába, that "it was not intended that wood for ráb and for agricultural implements should be given to villages that have not hitherto enjoyed the privilege, and even in the case of villages that have enjoyed it, there is no necessity for the Conservator to allow entrance into the forests if his own department can in any way provide what is required."

120. Government Resolution No. 2295, dated 19th April 1875, published a letter from the Secretary to the Government of India to all Local Governments, forwarding copy of a despatch from the Secretary of State, No. 11, dated 8th October 1874, para. 3 of which treated on the subject of the rights and privileges in demarcated forests held by the inhabitants of those forests or by neighbouring communities; and the Conservators of Forests were directed to report how far the recording of forest rights had been attended to in the demarcation hitherto carried out, and their opinion was requested as to the extent to which the views of the Government of India can be carried out in this Presidency.

121. Colonel C. J. Prescott, Superintendent Guzerat Revenue Survey, reported to Government that in the survey settlement of the Godhra Taluka of the Panch Máháls the only forest trees standing in occupied numbers that had been reserved to Government were teak and blackwood, and that to this reservation many of the occupants made great objection, urging that they had enjoyed the right in them under Scindia's Government, and that these rights had been secured to them by treaty. And Government in their Resolution No. 2498, dated 30th April 1875, in the Revenue Department, para. 13, expressed their approval of the reservations made.

122. Babaji Janardan Gádgil, Khote of Bandh Tivré, in the Dápoli Taluka of Ratnágiri, filed, as stated in para. 78 of last year's Report, a suit in the Ratnágiri Civil Court against the Collector and the Conservator of Forests, claiming certain land inside the Bandh forest and the right to lop teak and cut other trees growing upon it; and Government in their Resolution No. 3252, of the 9th June 1875, in the Revenue Department, sanctioned the defence of the suit, with the remark that "the arguments adduced in behalf of the plaintiff's claim to proprietory rights in the land sued for appear exceedingly weak, and it is pretty clear that any lopping of teak that may have occurred in former years was by favour, and not as of right."

123. The inhabitants of certain villages in the Bhiwandi Taluka of Tanna complained to Government of the inconvenience they are put to by being prevented from obtaining from the forests firewood and wood for agricultural purposes and for the construction of their huts, and appealed for redress. And Government in their Resolution No. 4097, of the 20th July 1875, in the Revenue Department, directed that "the petitioners should be informed that Government are unable to accede to their request.

"2. The existing rules have been framed in order to preserve the forests in Tanna, and petitioners should remember that were the forests destroyed, as they soon would be if Government did not interfere to preserve them, then the people would not be able to get wood at all.

"3. The existing orders are quite sufficiently liberal. People residing in forest villages are allowed firewood free, and the poorer classes are allowed wood free of charge for agricultural purposes to a reasonable extent. People who live at a distance from forests cannot reasonably expect that Government would give them wood for nothing for their own use, still less to trade in, as many people in the Konkan are in the habit of doing."

124. In their Resolution No. 4105, of the 20th July 1875, in the Revenue Department, Government were pleased to pass the following orders regarding the rights of the land-holders over trees other than teak and blackwood growing upon their fields in the Dáhánu Taluka of the Tanna Collectorate :—

The view of the Collector that the concession granted by Government Resolution No. 2775, of the 11th June 1870, to the ryots of the Dáhánu Taluka, to cut wood in their own occupied lands for their own use (except the reserved kinds of timber) was meant to apply only to survey occupants cultivating themselves, and not sub-letting their fields to tenants,

is quite untenable, and opposed to the original intention of Government.

2. The decision of the District Judge of Tanna in the case of Atmaram Nilkant Tipnis, whether right or wrong, has nothing whatever to do with the present question. That decision was to the effect that the right of a Sutidár to timber growing in his land descended to him from a period prior to the introduction of British rule, and cannot now be limited by an order of Government. It is perfectly clear that rights, whatever they may be, antecedent to the Government Resolution dated 11th June 1870, cannot be affected by that Resolution. But this question is not now raised. The present question is regarding the extent of the concession made in 1870 to people who, it was at any rate assumed, had no rights before that concession.

3. The concession was that the ryots of Dáhánu (who it was assumed had no right of doing so before) might cut from the lands in their own occupation as much wood out of the reserved kinds as they pleased for their own use. The restriction on the concession was that they were not to turn wood-dealers, *i.e.*, to sell the wood. The object of the restriction was not so much to preserve the jungle in occupied numbers as to prevent the ryots from cutting and selling the wood in unoccupied lands under cover of cutting that existing in their own lands. Government are, therefore, unable to uphold the action of the Collector in the case of Moro Bhat (*vide* para. 73 of last year's Forest Administration Report). It was not alleged that he cut the wood anywhere except in his own land, or that he sold it, but merely that he cut a quantity larger than he could want for the use of his family, and probably meant to sell it.

4. In future, in the Dáhánu Taluka, the Collector should not interfere in any way with the ryots' cutting unreserved timber in their own occupied lands; but if he finds that a ryot is selling timber, he should sue him to recover its value on the ground that Government gave the ryot the wood for his own use, and not for sale, and that the ryot is selling wood that does not belong to him.

5. These orders, if acted up to, ought to check any practice of plundering the unoccupied Government lands, or forests, for profit. And as regards the clearing of the occupied lands, Government cannot but think that the district and forest officers are inclined to carry conservation in Dáhánu to an excess. Dáhánu is a jungly, unhealthy taluka, in which an extension of cultivation would be the best thing possible. There

are only 164 square miles of occupied land out of 470, and Government cannot but think that the reservation of two-thirds of the area as forest is sufficient for all purposes, even if the ryots clear and cultivate every yard of the remainder.

125. Náráyan Chintaman Joshi and 160 other inhabitants of Máhim, in the Tanna Collectorate, petitioned Government, complaining of the interference of the local authorities with their "*ancient and ancestral rights*" of bringing from the forests of that taluka free of charge wood of different sorts, and praying that orders may be issued, allowing them to remove from the forests free of charge the wood they require. Whereupon Government, in their Resolution No. 4311, of the 30th July 1875, in the Revenue Department, ordered that "these petitioners should be informed that the orders they complain about will not be altered. To permit indiscriminate cutting in forests means their destruction; the petitioners can get what wood they require at a very moderate price,—in the case of bamboos 8 annas a cart-load,—and there is no reason whatever why they should get their wood, bamboos, &c., for nothing more than other people."

126. It was recorded in para. 74 of last year's Report that Government had directed the withdrawal of the special appeal to the High Court, instituted under authority of their Resolution No. 1665 of the 18th March 1875, against the decision of the District Judge of Tanna in the suit of Atmárám Nilkant Tipnis of Chauk, in the Tanna Districts, who claimed the teak trees growing on his survey fields, for the reason that the defence to establish the rights of Government over teak on private lands had not been prepared with sufficient care.

127. Mr. Nairne, C.S., First Assistant Collector of Tanna, was then directed to collect the necessary proofs for Government to maintain their rights over teak and blackwood trees growing on private holdings, and this officer, after much research, submitted his Report, No. 3754 of the 5th October 1875, in the matter. Upon which Government Resolution No. 6646, of the 27th November 1875, was passed in the following words:—

"This report is clear and conclusive, and it is to be regretted that it was not before Government when it was decided not to appeal in Atmárám Tipnis' case. The result of that case appears to be that the people have an idea that Government have given away the reserved kinds of timber, and it is necessary to take immediate steps to remove this misapprehension.

"2. The Collector should be informed that Government consider they are now in a position to maintain in a Civil Court their right to all teak and blackwood trees in the Northern

Konkan, which they, in consequence of imperfect inquiries, were not when the Tipnis' case was decided, and will, therefore, be prepared to support the action of the Collector in stopping the cutting of such trees in all sarkari lands without permission. The Collector may be authorized to give permission in rice and garden lands, but instructed to refuse it in all other lands in which the trees have not been bought from Government. These instructions should be circulated to the Mámlatdárs, who should prevent cutting by issuing injunctions in all cases in which they may hear of any intention to cut, so that people may be punished for disobeying the orders of lawful authority if they still persist in doing so. If any case arises, Mr. Nairne should be deputed to defend it with such legal assistance as he may require. A copy of Mr. Nairne's report should be sent to Mr. Naylor for information, with an intimation of the course Government have determined to pursue."

128. The Conservator of Forests brought to the notice of Government that Atmárám Nilkant Tipnis, the plaintiff in the one-tree case, had felled 380 teak trees in two survey numbers in his occupation in the village of Nudal, in the Khalapur Petha of Tanna, which the Forest Department had seized, but liberated by order of the Collector, and that Atmárám Nilkant Tipnis was preparing to cut teak largely on all survey numbers occupied by him, and suggested that a civil action should be instituted against him to recover their value. Government, in their Resolution No. 6647, of the 27th November 1875, sanctioned proceedings being "taken against Atmárám Nilkant Tipnis to recover the value of the 380 teak trees."

129. About 5,000 teak trees in his occupied lands in the Khalapur Petha of Tanna were felled by Atmárám Nilkant Tipnis, following the liberation of the 380 trees that this department had seized at Nudal. No civil suit had up to the close of the year been instituted against this man owing to the absence of Mr. Nairne from Tanna. And criminal proceedings against him for unlawfully felling trees are arrested until a warrant can find Atmárám Nilkant, who made himself scarce soon after the publication of Government Resolutions Nos. 6646 and 6647 of 1875.

130. The Conservator of Forests drew up a set of rules for the management of forests in Izafat villages, the circumstances of which are that the forests are alienated in part, the management resting with the Izafatdar, who is required to pay Government their share. And these rules were submitted to Mr. Naylor who, after revising them, submitted them to Government, when Resolution No. 6770, in the Revenue Department, dated 2nd December 1875, was passed upon them in the following words:—

The rules and forms are approved and sanctioned. The forms should be printed and given to the Izafatdars at cost price. The rules should be printed for the use of District and Forest officers, and translations given to the Izafatdars.

2. It should be pointed out to the Revenue Commissioner that Rule IX. gives the officers of Government power to look at the accounts at any time. It would not, as far as Government are aware, judging from Mr. Naylor's report only, be in competence of Government to forbid the Izafatdar cutting any particular wood he wants to cut.

3. The Conservator asks that the rules may be made applicable to all Inámdars who exercise forest rights and pay judi on them to Government. Government have no objection; but, before the rules are applied, the Conservator should ascertain from the Collector and Mr. Naylor that no legal objection can be taken by the Inámdar.

4. Rule VII. provides that a regular examination of the Izafatdar's accounts shall be held three times a year at the Mámlatdar's kutcherry, and the judi will be then calculated and paid. The Conservator lays stress on the necessity for this rule. In approving of it Government desire it to be understood that they do not think a hard and fast line should be drawn as to the dates on which the examination of the accounts should be made, and the number of times in a year the process should be gone through. It will probably be best to insert the words in the first sentence, "or on such other dates as the Collector and Conservator may appoint," and then arrangements can be made to suit different cases. It is unnecessary to give an Izafatdar, who cuts but little, unnecessary trouble, and, on the other hand, when heavy cuttings are going on, more frequent examinations of accounts may be advisable. Similar arrangements can be made as regards the payment of the instalments of the judi.

5. In sanctioning these rules Government do so on the distinct understanding that the Izafatdar himself derives a revenue in which Government have a share from the 'forest produce' mentioned. If the Izafatdar does not derive a revenue from 'karvi' or other minor produce, Government, by the terms of the Izáfatdár's tenure, have a right to share in it, and there is no reason why that right should be foregone. But Government do not intend this rule to be wrested so as to make it imperative on Izafatdars to demand a revenue on such minor produce when the people have hitherto obtained

it free from the Izafatdars' forests, or to sanction implicitly new taxation of such minor produce in Government forests.

Rule I.—At least two months before the commencement of any cutting in the forest, the Izafatdar will deliver a yádi to the Mámlatdár of the taluka in which his village is situated, to be forwarded to the District Forest Officer, stating the following particulars :—

1. The species of trees, or description of other forest produce that he purposes to cut, *i.e.*, whether teak, blackwood, rywal (building timber), firewood, bamboos, karvi, or other.

2. The approximate amount of each kind or description, and the circumference and length of the trees and poles which he intends cutting.

3. The limits within which the fellings are to take place, *i.e.*, whether the entire forest area of the village is to be operated upon or a certain portion of it only.

4. The period or periods of felling from what date to what date.

5. Whether the Izafatdar is going to cut the timber, &c., himself, and afterwards sell it either at once to a particular person or persons, or from time to time as purchasers may be found, or whether the trees or other forest produce are to be sold standing in lump to a contractor or to different purchasers who will fell and remove the material at their own cost.

6. If any contract or agreement have been entered into either for cutting and purchasing, or for purchasing only, a copy of every such contract or agreement shall accompany the yádi, if the same be in writing ; and if oral, the terms as to prices, quantities, and other particulars shall be fully set forth in the yádi.

Rule II.—The Izafatdar will issue a pass with every cart, raft, or load of timber or other forest produce exported from his village, whether by himself or his servants, or by contractors or purchasers. Printed forms, with counterfoils to be retained by the Izafatdar, will be supplied for this purpose by the District Forest Officer at cost price, in which the following details will be filled in under the signature of the Izáfatdar or of his authorized agent :—

1. Species and description of forest produce, *i.e.*, whether timber (and, if so, its kind), firewood, bamboos, karvi, &c.

2. Form and shape, *i.e.*, whether logs, rafters, beams or other.

3. Quantity, *i.e.*, cubical measurement or number of pieces.

4. Price paid or to be paid, and the name of the contractor or purchaser, and date of his contract or agreement.

5. Distinguishing marks.

6. Destination.

7. Date when pass was granted, and how long it is to continue in force.

Rule III.—If any timber or other forest produce is removed from an Izafatdar's village, except under cover of a pass duly filled in and signed as prescribed by last rule, it shall be liable to seizure by any Forest, or other Revenue, or Police Officer, and to be disposed of as if it were the property of Government.

Rule IV.—The following accounts, in connection with their forests, will be kept by Izafatdars :—

1. A stock account book showing in detail all the material felled and brought out of the forests, and how the same is disposed of, in Form A hereto annexed.

2. A roz-kird, or daily cash book, in Form B hereto annexed, in which every money transaction connected with the forests of the village will be entered.

3. A ledger of the above, in Form C.

4. Pass books in which shall be kept the counterfoils of all passes that have been issued, containing all the details required in the passes themselves.

5. A memorandum book of the date and terms of every contract or agreement, either written or verbal, entered into by the Izafatdar for sale of forest produce, with the names and residences of the contractors or purchasers.

6. Receipts shall be taken and kept for all disbursements, and shall be granted for all sums received, and duplicates of the latter shall be kept and filed in chronological order.

Rule V.—The above accounts will be kept by the Izafatdar in person, or by an agent appointed and paid by him, who should be provided with a power of attorney from the Izafatdar to collect monies and issue passes on his behalf, a copy of

every such power of attorney being forwarded as soon as the power is executed to the District Forest Officer for his information.

Rule VI.—The accounts will be closed and balanced at the end of every official year; *i.e.*, new accounts will be opened on the 1st April of every year, and closed on the 31st March of the following year.

Rule VII.—On the dates noted in the margin, or on such other dates as the Collector and Conservator may appoint, the Izafatdars will either bring or send by their authorized agents to the taluka kutcherry all the documents required to be kept by Rule IV., fully made up and complete to date, together with the originals of any written contract or agreement into which they have entered for the sale of forest produce. The accounts will then be compared and examined by the Forest Inspector of the taluka and the Mámlatdár, in conjunction with the Izafatdar or his authorized agent, and, if found correct, the amount of judi payable to Government will be ascertained from them, and recorded in the roz-kird under the signatures of the Mámlatdár, the Forest Inspector, and the Izafatdar or his agent. In the event of any dispute as to the correctness of the accounts, a reference will be made to the Collector by the Mámlatdár, who will forward the written explanation or objections of the Forest Inspector, and of the Izafatdar or of his agent, together with his own opinion as to the points in dispute.

1st March
1st July
1st December
} of every year.

Rule VIII.—The judi shall be paid by the Izafatdár or his agent into the Mámlatdár's treasury to the credit of the Forest Department within seven days after the amount due has been determined.

Rule IX.—The Collector of the District or Assistant Collector, the Conservator of Forests, the District Forest Officer, the Taluka Forest Inspector, or the Mamlatdár shall be at liberty to call for and examine the Izafatdar's accounts in his village at any time when any such officer may think fit to do so, and the Izafatdar or his agent shall render every assistance in his power towards this work by producing his books and papers, and explaining items.

Rule X.—The Conservator of Forests, acting under the orders of Government, will appoint as many Rakhwaldars, or other forest subordinates, as he may from time to time think proper, in each Izafatdar's village, in order to protect the inter-

osts of Government, the salaries of all such servants being disbursed by Government; and no objection or resistance shall be offered by the Izafatdar, or by any of his servants, contractors or purchasers to the performance of any such Rakhwaldar &c., of the duties assigned to him.

131. Certain inhabitants of Tárápur and Chinchni, in the Tanna Collectorate, having complained to Government of the restriction placed to their obtaining firewood free of charge from the forests, and praying that the levy by the Forest Department of a fee on wood supplied from the forests may be abolished, and that they may be allowed to remove the wood free of charge "as hitherto," Government in their Resolution No. 6791, of the 3rd December 1875, ordered that—

"Copies of Government Resolutions Nos. 4097 and 4311 of 1875 may be sent to petitioners in reply to their complaint about forest produce.

"2. Petitioners can represent their complaint, with regard to instalments, to the Revenue Commissioner, who can deal with it."

132. The ryots of the village of Utteet, in taluka Wai of Satara, advanced a claim to certain teak trees felled by the Forest Department in survey No. 22 in their occupancy, in that village, which was rejected by the Collector; they then appealed to the Revenue Commissioner for a reversal of this decision, who submitted the case to Government for orders; and Government, in their Resolution No. 765, of the 4th February 1876, directed that the Honourable Colonel Anderson's opinion (which was requested) should be acted on, and the practice in force before the survey continued.

Colonel Anderson's opinion reads thus—

"With reference to the above (Government reference No. 7033, dated 14th December 1875), before the settlement under British rule, and under Native rule also, it is believed teak standing on Government land was a Government royalty. At the time of the settlement a common question by the people was 'what are the orders about teak.' On being asked, in return, what was the present practice, they invariably stated that they were not allowed to cut teak, on which they were informed that present practice remained intact. No written order was given at the settlement on the subject, as the object was not to interfere with ancient practice, but to leave it to stand of itself.

"2. Clause II. of Rule III., above referred to, has the meaning imputed to it above in the Under Secretary's memorandum clearly; but it must be read with the rule itself, which assumes the existence of a Government right primarily in all trees, or, at any rate, covers only whatever right Government do possess in all trees.

"3. Colonel Francis can give some information regarding a case which was tried in Tanna, in which the decision may have a bearing on the present case. But it is doubtful if practice previous to the survey was so clearly defined there as in Satara."

133. Naro Ramchandra Parchuré, Inámdar of the village of Asnowli, in the Tanna Collectorate, of whom mention was made in para. 70 of last year's Report, has filed a suit against Government for the purpose of establishing his claim to the forest of Asnowli; and Government, in their Resolution No. 1128, of the 22nd February 1876, have sanctioned the suit to be defended.

134. One Wasudeo Bhaskar Pendse, inhabitant of Chouk, in the Karjat Taluka, of the Tanna Collectorate, has filed a suit against Government, seeking to establish his right to the teak trees growing on certain land, which, he states, to be his "Malkichi" land, meaning his occupied fields. And Ramchandra Govind Datar has likewise filed a similar suit against the Collector of Tanna and two others, claiming six teak trees, three of which are situated in the village site and three in his survey numbers. Government in their Resolution No. 1360, of the 2nd March 1876, directed that—

"The suits should be defended on the ground suggested by the Collector, and on the general arguments against claims to teak urged by Mr. Nairne in his report. Mr. Nairne should have charge of the cases."

135. The suit brought against Government by Babaji Janardhan Gadgil, a khote of Baund Tivre, in the Dápoli Taluka of Ratnágiri, claiming certain lands inside the Bandh Tivré reserves, and the right to lop teak trees in the Government forest, mentioned in para. 78 of last year's Report, was tried on the 16th February by the District Judge of Ratnágiri, and decided in favour of Government, the claim of the plantiff being dismissed with costs.

136. Laxuman Ramchandra Bidé, khote of several villages in taluka Karjat, of the Tanna Collectorate, on which he is trying to raise a loan from Government, and holder in inám of 15 bhigás of land in Kishiwli, cut in warkas land, which he alleged to be inám, 1,124 teak logs; an auction sale of 550 of these, valued at Rs. 330, was to have been made on the 11th December 1875. In pursuance of a decree, and by order of the Kalyán Court on the 5th January

(the auction having been postponed), an application for removal of attachment was made by this department, on the ground that the teak was Government property, and on the 16th December 1875 the Kalyán Court issued an order removing the attachment.

137. The Acting Collector of Kolába, Mr. Arthur Crawford, was authorized, under Government Resolution No. 3742, of the 2nd July 1875, to settle out of court a claim for Rs. 1,787-8-0 advanced by Govind Náráyan, the managing kárkun to the Deosthán Committee of Pratápgarh on account of teak rafters which were attached by the police patel of the village of Charai, in the Mahád Táluka of Kolába, under orders issued by the Second Assistant Collector and First Class Magistrate, and accordingly a compromise was effected by the Collector, of Rs. 893-12-0, the payment of which amount was sanctioned in Government Resolution No. 2830, of the 2nd September 1875, in the Financial Department.

138. In Khandesh, under local orders, people are allowed to cut and remove firewood free of charge from all Government lands, sanctioned first-class forest reserves alone excepted, irrespective of whether they reside in forest villages or in villages miles distant from any forest—of whether they are indigent or are rolling in wealth, so long as the wood is stated to be for domestic consumption. The consequence of this arrangement is that large numbers of cart-loads of firewood are sold in the towns of Jalgaon, Dhulia, Bhusáwal, Párola, and Dhamangaon, for which Government gets no seigniorage. Sweetmeat-makers, bangle-makers, potters, liquor-distillers, cotton-gin factories, and other manufacturers, who consume wood, drive their trade at the expense of the Forest Department. And at the same time surprise is expressed that the forest revenue is not larger than what actual credits represent.

139. The Conservator is perfectly aware of the fact that the forest exists for other purposes than to enable his department to show surplus, and is continually impressing this axiom upon his subordinates. Government (*vide* their Resolution No. 6144, of the 1st November 1875) state that—

> "The true objects for which, in the opinion of Government, the Forest Department ought to be organized and maintained are—
>
> "1*st.*—To guard and preserve from wasteful destruction the timber growing on defined tracts of land which may properly be withdrawn from private occupation, and by good management to ensure the supply from those tracts in time to come of timber needed to meet the wants of the country.
>
> "2*nd.*—To combine with the above the realization, by reasonable means, of such a revenue as the Government is entitled to expect from its possession of such valuable property."

140. Now it must be manifest to everybody possessing the slightest acquaintance with forests and forest management that it is as impossible to regulate the axe and to guard and preserve from wasteful destruction the trees in forests thrown open to a population for cutting at pleasure as it is to show a revenue when every want in wood is supplied free of charge, and the article under these conditions does not possess market value.

141. It is not the poorer inhabitants only that thus prey upon the forests, but the richer residents of villages—men who can well afford to pay for wood, and who could have to do it did they live it in the city of Poona or of Bombay for instance, or anywhere beyond the limits of Khandesh or Tanna.

142. The Collector of Tanna, without consulting the Conservator, applied to the Revenue Commissioner, N. D., and obtained permission for the inhabitants of non-forest villages, large towns and residents of the sea-coast villages alone excepted, to take firewood from the Government forests free of charge; this order was very liberally translated by talátis, and permits were granted to carts to go into the forests for wood. Thus not only was conservancy set entirely aside, but legitimate revenue of Government was sacrificed.

143. By this so-called exercise of private rights the forests suffer in more ways than one: wealthy dealers or ryots and other inhabitants of villages, who probably have never been into a forest in their lives, and have not the shadow of a claim upon it by prescription or otherwise, make use of the poorer classes to get wood for them in their names, and, when once removed from the forests, a great portion of this wood goes to the Bombay market. Conservancy is not only rendered impossible, but the improvement of these and other forests and planting operations suffer, for the reason that it is extremely difficult under proper management to make the forests yield the quantum of surplus revenue that is required of them, and that must be assured before funds are granted for works of improvement. If this surplus revenue is not guaranteed, then money provided for planting, for opening out forests, and other works of development and improvement is struck out of the budget estimates. This was done by Government last year by their Resolution No. 6144 of the 1st November 1875, one para. of which reads thus:—

> "It is perfectly true that the forest should be looked upon as a valuable property on which the expenditure of capital at present will ultimately yield large pecuniary returns, both directly and indirectly. But the financial needs of the State are such that, whatever be spent, the receipts must exceed it

by a certain amount; and the Government of India, in the Financial Department, are anxious that in this Presidency the surplus should not be less than Rs. 5,00,000. It may not always be possible to obtain this surplus, especially when extra forest demarcation work is progressing, but that amount should always be worked up to. Under these circumstances His Excellency in Council considers it would be useless sending on these budgets unaltered for sanction, and modifications must, therefore, be made in them as given below, so that the surplus may, at least, exceed 4 lakhs of rupees. Important as the conservancy of forests is, it, like every other department, must yield to the imperative needs of imperial finance."

144. Soubhagidas Kesheodas Khote, Izafatdar of Pigondé, a village in the Nágothna Petha of the Kolába Collectorate, instituted a civil suit in the District Judge's Court of Tanna in 1867 against the Conservator of Forests and Sub-Collector of Kolába, alleging that he had acquired a ¾th share in the village of Pigondé, together with the teak and other forests attached to the said village (the remaining ¼th share belonging to Government); that the Government in 1865-66 and 1866-67, without right, cut down and sold certain teak and other trees, and he sued the Conservator of Forests and the Sub-Collector of Kolába to establish both his right over all the trees in the forests attached to the village as well as those in the village itself, and also his title to the Izafat village, and to recover ¾ths of the proceeds of the sale of the trees made in 1865-66 and 1866-67.

The District Judge of Tanna found, after taking all the evidence in the case, that the plaintiff had acquired by purchase the khoti rights in three-fourths of the village, and that the khote of Pigondé became proprietor of all the trees in that village under Mr. Dunlop's proclamation of the 1st March 1824.

An appeal by Government was made to the High Court against the decision regarding the forest and trees, and judgment was delivered on the 11th October 1875 by Chief Justice Sir Michael R. Westropp and Justice C. G. Kemball, to the effect that the decree of the Lower Court must be reversed, and the claim rejected with all costs upon the respondent.

145. Before the introduction of the revenue survey into this Presidency it was the practice of Government to preserve all trees on forest and waste lands, and to preserve royalties, such as teak, blackwood, and sandal, on all occupied lands. Tiwas and babul were also royalties in some districts, and in addition to these the chief building timber trees on occupied hill lands were reserved to Government. With the survey, however, a change came over this

state of things : in several districts all trees on all occupied lands, teak, blackwood and sandal excepted, were made over without restriction to the land-holder, while in a few talukas the old practice was continued, and no such remission of rights was made by Government. This year, however, the Acting Revenue Commissioner, N. D., Mr. E. Robertson, C.S., called upon the Conservator to prepare a list of reserved trees with the object that in all Government lands but first-class reserves the people may have full rights to fell at pleasure any trees except of the reserved kind. A report was made by this office, and finally Government Resolution No. 130 of the 6th January 1876 was passed on the subject :—

> "In point of convenience there is, no doubt, much to be said in favour of the proposal made by the Forest Conservators, that instead of having fixed lists of the reserved trees for each district, the forest officers should, at their discretion, from time to time declare those of which the cutting should be prohibited. But there are certain considerations which preclude the Government from giving their sanction to such an arrangement. It must always be remembered that in the majority of cases the pressure of the rules made for the preservation of the forests and the protection of the revenue will fall with the greatest weight on some of the poorest and least civilized of the population of the Presidency, who have long been, as they now are, very dependent on the supplies they draw from the forest. It is the duty of the Government to take care that in carrying out reforms, which ought ultimately to benefit even these people themselves, the hardships of their lives are not unduly aggravated, and to retain in their own hands a degree of control sufficient for their protection. They must not be sacrified to an undue desire to increase the powers of the forest officers, or to enhance prematurely revenue of the department.
>
> "2. For these reasons it appears desirable that the species of timber to be reserved in each district should be fixed and notified. The number to be reserved at one time probably need not exceed eight in the Northern Division and double that number in the Southern. It would be open to the Conservators to make alterations from time to time in the lists with the approval of Government. The reservation should extend to saplings as well as to what is ordinarily known as building timber."

146. According to these orders no interference is to be made with the people in felling all but the reserved kinds of trees in

forests other than first class reserves. What wide-spread destruction of trees this will cause, will be apparent from the fact that, with a single exception, the reserves now demarcated in Násik Proper are of the second class. It will also tend to depreciate the value of wood, and to rob Government of their legitimate forest revenue; for the people having the Government lands open to them have no inducement to preserve the junglewood trees on their survey numbers, full rights over which have generously been given to them by Government. They sell these trees to dealers for nominal prices, and then there is a scramble in the second-class reserve, each man endeavouring to anticipate his neighbour until the reserve is exhausted of unreserved trees. Under this arrangement all the profits go into the pockets of the timber-dealers; while Government, the people, and the country are sufferers. This department loses in so far as there is no local market for its unreserved produce; no man is foolish enough to pay for wood when he can get it free from the felling and removing.

147. The Revenue Commissioner, N. D., having submitted a list of "*timber trees*" that he recommended should constitute the reserved trees of Khandesh, and which list he stated had been prepared in communication with the forest demarcating officer, Mr. Horsley, C.S., Government, in their Resolution No. 1527, of the 9th March 1876, sanctioned the list, which is as follows:—

1. Teak.	5. Sandalwood.
2. Anjan.	6. Tiwas.
3. Babul.	7. Khair.
4. Blackwood.	8. Mango.

Of the above the mango is a fruit-tree, and is not valuable for its timber; the blackwood is very scarce; while the babul is to be found only in the plains, and not in the Sátpura Ghát or mixed or moist forests: and Mr. Horsley, on a reference from the Conservator, reported that he did not know of the existence of sandalwood in Khandesh. Thus practically the reservation from destruction extends to four species of trees only.

148. *Free Grants of Wood.*—The Revenue Commissioner, N. D., having made a report to Government that delay arises in making free grants of timber, &c., for agricultural purposes to ryots in Khandesh, and having suggested that either Mámlatdárs be empowered to make grants of timber, or the Conservator be requested to make such arrangements as will enable the ryot to procure the necessary timber without, at longest, more than three days' delay, the report of the Conservator of Forests, N. D., was

called for, and, finally, Government passed a Resolution, No. 1790, of the 24th March 1875, in the Revenue Department, in the following words :—

"Free grants of wood, strictly under the rules in force up to Rs. 20 in value, may be made by Mámlatdárs, and up to Rs. 50 in value by Assistant Collectors as well as Collectors; but for those above Rs. 50 and up to Rs. 500 in value the sanction of the Revenue Commissioner should be obtained. Mr. Shuttleworth's suggestion to empower the Conservators of Forests to make free grants of wood up to Rs. 50 as a special reward to those who may assist the Forest Department in the preservation of forests or the prevention and detection of forest crimes, is approved. With these modifications the existing rules for making free grants of wood should continue in force. Purwánás should be given to the granteos, which should, as suggested by the Conservator, pass through the hands of the forest inspector before the wood is taken, and monthly lists of free grants should be sent by each officer who grants them to the Collector.

"2. The accompanying summary of all the previous orders of Government relating to free grants of wood should be sent to all district and forest officers for easy reference.

"3. The Collectors are requested to see that the rules are strictly observed, and that the power to make free grants is not abused."

SUMMARY OF THE ORDERS RELATING TO FREE GRANTS OF WOOD.

Captain Bingham, Acting Conservator of Forests, submitted to Government, with his letter No. 118, dated 2nd February 1862, certain proposals for the re-organization of the Forest Department. One* of them was that the value of timber given gratis for the repairs of temples, dharamshalas, and works of public utility, or any extraordinary grant, when sanctioned, should be credited and debited in the accounts.

* Proposal No. IX.

(2). Government in their Resolution No. 3922, dated 28th October 1862, approved of this proposal, remarked that small grants of timber might be made by the Collectors, but for larger ones the sanction of the Revenue Commissioners should be obtained, and requested the latter officers to fix the amount within which the Collectors might make these grants.

(3). The following rules were accordingly laid down by Mr. Ellis, Revenue Commissioner, N. D., in a circular* addressed by him to the Collectors of that division :—

* No. 2000, dated 17th July 1863.

"I.—Timber may be allowed by the Collector gratis for—

1*st*.—Repair and construction of—

(*a*) Village chauris.
(*b*) Village schools.
(*c*) Dharamshalas.
(*d*) Public wells.
(*e*) Bridges over nallas and water-courses.

"2*nd*.—Repairs to village churches, temples, or mosques.

"3*rd*.—Houses of agricultural classes paying revenue to Government. Grant to be made only when the Collector considers the circumstances of the applicant to call for the grant.

"4*th*.—Agricultural implements, wells for irrigation, and other agricultural improvements, to be granted on the same grounds as No. 3.

"II.—A grant under Nos. 3 and 4 is not to exceed Rs. 20 in value, and a grant in other cases is not to exceed Rs. 50, without previous sanction of the Revenue Commissioner.

"III.—The grants are to be made from any collection of timber that may be available, the cost of felling and carriage from the forest to the depôt being recovered from the grantees.

"IV.—When no depôt is available, then the applicants will be allowed permits or passes to cut on their own account such trees as may have been marked for cutting, the forest establishments being responsible that the privilege is not abused, and that other trees than those pointed out are not cut.

"V.—An annual return, showing the grants made during the twelve months ending 30th April, should be submitted by the close of May every year."

(4). Mr. Ellis' rules met with the entire approval of Government, who in their Resolution No. 1106, dated 26th March 1864, stated that they considered the rules should be generally adopted, the wood thus granted being cut from the reserved kinds of timber in the village reserves, and observed that the reservation made in clauses 3 and 4 of Rule I., viz., that the grants should be made only when the Collector considered that the circumstances of the applicant called for the grant, was calculated to prevent an abuse of

the privilege, whilst it left in the hands of the Collector that discretionary power which it was always so desirable they should possess.

(5). The Revenue Commissioner, S. D., in a circular* addressed by him to the Collectors of his division, directed them to observe the following rules in making free grants of timber. He stated :—

* No. 2238, dated 21st July 1863.

I.—"1*st.*—As regards grants of timber for works of public utility, these may be made by you for the repair and construction of—

1. Village chauris.
2. Village schools.
3. Dharamshallas, or rest-houses.
4. Covers, fences, &c., of public wells.
5. Bridges over nallas and water-courses.
6. Works of *bonâ fide public utility* not particularized above.

"2*nd.*—As regards grants for religious edifices not the property of individuals, but public as regards whole sections ot the community, you may make grants for the repairs of village churches, temples, mutts, and mosques.

"3*rd.*—As regards extraordinary grants, you may make such for the repair and re-construction of houses injured or destroyed by fire, flood, or similar calamity, if the houses so injured or destroyed belonged to persons paying revenue to Government, or to lowly paid Government servants, and for the construction of houses which Government servants may be obliged to erect in consequence of their being stationed at newly-established revenue or police stations where there is not sufficient house accommodation.

N.B.—This rule will not apply to houses simply falling down in the rains owing to previous neglect to keep them in proper repair.

"II.—Your grants for the purposes described under the first and second of the above three heads may, as I have already informed you, amount to Rs. 50, but those coming under the third head should not exceed Rs. 20 in each case without the previous sanction of the Revenue Commissioner, whose sanction should also be obtained for extraordinary grants of a nature not described above when such appear to the Collector to be called for.

"III.—The grants are to be made from any collection of felled Government timber that may be available, the cost of

felling and that incurred in transporting the timber to the depôt being recovered from the grantees.

"IV.—When no depôt is available, then the applicants may be allowed to obtain gratis, under such rules as may be in force in the district with respect to the felling, &c., of trees sold to individuals, such trees within the value of the grant as may have been marked for cutting, the forest establishments being responsible that, if the grantees are allowed to cut for themselves (a practice to be avoided if possible), this privilege is not abused, and that other trees than those pointed out are not felled or injured.

"V.—The annual return requested by the circular endorsement from this office No. 1796, dated 19th June 1663, should be in the form annexed to this letter.

You will, of course, understand that nothing in the above rules is to interfere with Captain Bingham's amended rules upheld by paragraph 26* of the Government Resolution No. 3922 of 1862, the† fourth of which allows of a relaxation in favor of cultivators and the poorer classes of the general rule‡ relating to bamboos and dead wood. You will also continue to uphold the right which the inhabitants of some parts of the country have always hitherto enjoyed of obtaining gratis bamboos and thorns for fencing their granaries, &c., and wood of little value required for their agricultural implements."

* *Extract paragraph* 26 *of Government Resolution No.* 3922 *of* 1862.

26. In the mean time the Governor in Council desires that the cuttings be conducted, as far as possible, on the system laid down in the Dharwar Rules, as amended in the Rules attached to Captain Bingham's report No. 118.

† 4 Rule 2nd to be relaxed at the discretion of the Collector in favor of the villages wherever there is jungle, and cultivators may be allowed to cut brushwood for their agricultural operations and private use, and the poorer classes to cut and convey head-loads of firewood for sale on permission from the Collector of the district.

Extracts from the Rules attached to Captain Bingham's report No. 118.

‡ 2. Bamboos may be cut and dead wood gathered on permits to be previously obtained from the Mámlatdárs and Mahálkaris.

(6). As the preceding rules did not differ materially from those for the Northern Division, Government in their Resolution No. 4012, dated 15th October 1864, directed that they should be continued in force in the Southern Division until experience showed that modifications were required.

(7). In October 1869 certain inhabitants of Kusba Pen applied to Government for the free grant of timber of the value of

Rs. 50 for repairing a mosque in that kusba. The application was referred to the Revenue Commissioner, N. D., on receipt of whose report Government in their Resolution No. 92, dated 6th January 1870, ruled that contributions should never be made to places of worship of any denomination without the sanction of Government.

(8). In June 1870 the Revenue Commissioner, S. D., submitted, for the favourable consideration of Government, an application for the free grant of wood of the value of Rs. 100-8-0 for repairing the dewasthan of Shanter Kamakaby in the town of Coompta and certain other buildings attached to it; and with reference to the ruling laid down in Government Resolution No. 92, dated 6th January 1870, inquired whether it was the wish of Government that the authority given to the Collectors and Revenue Commissioners to make such grants should be withdrawn. The Revenue Commissioner observed that by the rules sanctioned in Government Resolution No. 3922, dated 28th October 1862, and declared to be "still in force" by Government Resolution No. 2574, dated 26th June 1869, Collectors were authorized to make free grants of timber for the repairs of religious edifices not the property of individuals, but public as regards whole sections of the community, to the extent of Rs. 50 in value, and that grants of higher value required the sanction of the Revenue Commissioner.

(9). In sanctioning the above application for the free grant of wood, Government in their Resolution No. 2911, dated-20th June 1870, directed that the rules referred to by the Revenue Commissioner should be continued in force.

(10). The Government of India, in a letter No. 469-F, dated 25th August 1870, observed that as free grants of timber were in most cases equivalent to a grant from the Imperial Revenues, it was clearly necessary that they should be watched.

(11). A copy of the rule referred to in the 1st para. of this memorandum was furnished to the Government of India with this Government's letter No. 5395, dated 3rd November 1870. In reply the Government of India, in their letter No. 149-F, dated 24th February 1871, stated that they were not opposed to occasional free grants of wood and timber for charitable purposes and for the construction of religious buildings and buildings of public utility; but that, as previously remarked by them, such grants were equivalent to a grant from the Imperial revenues, and should, therefore, be carefully watched. The Government of India at the same time intimated their opinion that ordinarily such grants should only be made for special causes, such as old-established custom, or the desire to conciliate the people living in the vicinity of the forests, on whose good will the operations of the Forest Department much

depended, or other considerations of policy, or where there was no regular timber trade, and where it was difficult to provide needful wood and timber by purchase.

(12). On receipt of this letter, Government in their Resolution No. 1336, dated 20th March 1871, directed that the approved proposal No. 9, embodied in Government Resolution No. 3922, dated 28th October 1862, should ordinarily only be acted upon in cases like those instanced by the Government of India in their above instructions, and observed that those instructions did not, however, absolutely preclude occasional exceptions on sufficient grounds.

(13). The Government of India, in their letter No. 742, dated 23rd June 1873, ruled that in future, when the free grant of timber was an isolated one or one of a series, the aggregate amount involved in which did not exceed Rs. 500, it might be sanctioned by the Government of Bombay without reference to the Government of India, a reference being necessary when the grant made exceeded Rs. 500 in value. The Government of India also stated that the nature and extent of free grants of wood and timber made during the year should be prominently noticed in the annual reports of the Forest Department.

(14). These orders of the Government of India were communicated to the Accountant General and the Conservators of Forests with Government Resolution No. 3936, dated 10th July 1873.

(15). The Revenue Commissioner, S. D., in his letter No. 2807, dated 17th July 1873, invited the attention of Government to the rules for the free grant timber sanctioned in Resolution No. 4012, dated 15th October 1864, and continued in force by the further Resolutions of Government as per margin, and inquired whether, consequent on the instructions of the Government of India, communicated in Government Resolution No. 3936, dated 10th July 1873, the Revenue Commissioners and Collectors might continue to sanction free grants of timber, and, if so, within what limits as to value in each case?

No. 2574, dated 26th June 1869.
No. 2911, dated 20th June 1870.

The Revenue Commissioner observed:—

"2. Under the rules above mentioned, Collectors are permitted to make feee grants of timber within a limit of Rs. 20 and Rs. 50 according to the nature of the case, as specified in para. 3 of Mr. Hart's Circular No. 2238, dated 21st July 1863; while grants exceeding those limits are submitted for the previous sanction of the Revenue Commissioner, which, if the grant be admissible under the rules, is accorded without restriction as to amount; but the grants in

this division seldom, if ever, exceed Rs. 500, and are always accorded after consultation with the Conservator of Forests. A doubt having previously arisen as to the intention of Government regarding the practice, a reference was made, and it was affirmed in Government Resolutions quoted above in the margin.

"3. The present Resolution of the Government of India requires that grants exceeding Rs. 500 in value should be referred for the sanction of that Government; those of a less value being sanctionable by the local Government. Probably it may satisfy the requirements of these orders if the authority of Government in this matter be deemed to be deputed to the Revenue Commissioner, any proposed grants of higher value than Rs. 500 being previously reported for orders. In making this recommendation I have considered that the Conservator of Forests is the officer most directly interested in checking any sacrifice of the State interests in the Forest Department, and that Government would be probably guided in a question of detail by the concurrent opinion of the Conservator and the Revenue Commissioner."

(16). Government in their Resolution No. 4316, dated 28th July 1873, approved of the Revenue Commissioner's proposal, and directed its adoption.

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149. The Revenue Commissioner, N. D., made a reference to Government, suggesting that the authority given to Mámlatdárs to make free grants of wood under the above Resolution No. 1790, of the 24th March 1875, should be restricted to grants for agricultural implements, wells for irrigation, and other agricultural improvements, to be granted only to agricultural classes paying revenue to Government. But in their Resolution No. 2334, of the 21st April, in the Revenue Department, Government stated that they thought Mámlatdárs should be trusted to the extent laid down in Government Resolution No. 1790 of the 24th March 1875, especially as monthly lists of free grants are to be sent by each officer who grants them to the Collector, who will, of course, see that the privilege is not abused.

150. In their Resolution No. 2625 of the 7th May 1875, in the Revenue Department, Government approved of the proceeding of the Acting Revenue Commissioner, N. D., in having informed the Collector of Khandesh that the Honourable Mr. Ellis' Circular No. 2540 of the 10th August 1864, authorizing the Collector of Khandesh to make free grants of timber to the

value of Rs. 50 and Rs. 100 for private and public purposes respectively, was advisedly omitted from the summary of orders relating to free grants published under Government Resolution No. 1790, of the 24th March 1875.

151. The Conservator of Forests, N. D., on the 4th September, in his letter No. 2052, submitted, for the consideration of Government, that the Collector of Khandesh had, consequent to Government Resolution No. 2625, of the 7th May 1875, issued a circular order to his Mámlatdárs, informing them that he (the Collector) is empowered to make free grants of wood up to the value of 100 rupees for village chauries, and that the Mámlatdárs may give wood free for the same purpose up to 20 rupees, and that those orders were opposed to the Government of India's orders on the subject of free grants. Further, that Mr. Ellis' rules, which are incorporated in the Statement of Rules published under Government Resolution No. 1790, of 24th March 1875, were issued before the system of Local Funds came into existence; that the object of the Local Funds being to provide for the construction of buildings of public utility, the terms of Mr. Ellis' circular are somewhat inappropriate to the altered circumstances of the present day. The Conservator also stated his opinion that the orders regarding free grants as at present standing will not conduce to the protection and proper working of the forests, but, on the contrary, will be productive of a great deal of waste and improvidence, and will encourage people to sell their own wood and fall back on Government for their supplies. Finally, the Conservator submitted a draft of rules under which free grants should be made.

152. The Revenue Commissioner, S. D., when forwarding the above letter, stated that he did not see any need to alter the rules already promulgated; and the Revenue Commissioner, N. D., stated that he agreed with the Revenue Commissioner, S. D., and considered that the rules for the grant of timber, instead of being too liberal, are not sufficiently liberal.

153. Thereupon Government resolved, No. 6674 of the 27th November 1875, in the Revenue Department, that they see no reason whatever for altering their orders contained in Government Resolution No. 1790, dated the 24th March 1875, and No. 2334, dated 21st April 1875.

154. The Revenue Commissioner, N. D., having recommended a suggestion of the Collector of Tanna, that the orders contained in Government Resolution No. 1790, of the 24th March 1875, be so far extended as to authorize free grants of wood for the construction of houses being made to ryots who have no buildings

of their own, but are merely sub-tenants, or are relatives of those who directly hold land under Government, with the reservation that the concession should extend only to the indigent wild tribes. Government in their Resolution No. 5612, of the 4th October 1875, approved of the recommendation.

155. The free grants made during 1875-76 aggregated in value Rs. 10,917-11-3, and were distributed thus—

	Rs.	a.	p.
Tanna	1,454	4	0
Kolába	1,143	6	0
Ratnágiri	49	7	0
Khandesh	1,620	2	5
Násik	1,536	11	4
Ahmednagar	50	0	0
Poona	481	14	3
Satara	100	2	3
Sholápur	Nil.		
Surat	3,497	7	6
Panch Máháls	982	4	6

156. Considering that these free grants are of teak and other reserved timber trees only, and are in addition to the unreserved woods fit for building purposes and for the manufacture of agricultural implements, &c., that the people are allowed to take free of cost, it will be understood that they exercise a prejudicial effect upon the demand and market rates of timber.

157. In Tanna they have this year doubled what they were last, and in Násik they are three times as much; while in Surat, a comparatively forestless district, the people of which, excepting the Mándvi Taluka, have little or any claims on the forests, the free grants have increased by nearly one-half, and are disproportionately large.

158. Mr. Shewan, C.S, in forest charge of the Satara forests, writes as follows on the subject of "free grants": "—I think myself that it is a system that should be carefully watched, as it is very liable to abuse; one condition should be imperative, either that the applicant should be very poor, or have lately met with some serious misfortune. In such cases liberality is well directed; but if once Mámlatdárs get into a way of making or recommending grants of wood indiscriminately, and without proper investigations, serious frauds and loss will be the result."

CHAPTER IV.

PROTECTION.

159. Forest legislation is still a dead letter in this Presidency, though the want of a Forest Act is made more apparent year by year, Government forests and Government tree property being robbed on all sides with impunity both by the contractor or timber-dealer, who buys from Government and by outsiders.

160. It has in successive annual reports been brought to notice that, while the *onus probandi*, in connection with forest material reasonably suspected of having been stolen, rests with the Forest Department, and not with the man in whose possession the wood may be found; while no powers of search, arrest, detention, or inquiry are permitted to forest officials, whose evidence is often rejected unless corroborated by testimony of people unconnected with the department; and as long as the simplest measures of control and restriction, such as the compulsory use of passes covering timber, with the contingent liability of confiscation without such passes, the compulsory use of certain roads through forests for the conveyance of timber, and the closure of other roads, cannot be enforced, the conservation of the forests of this Presidency will exist only in theory, while in practice it will continue to be, as it has hitherto been, a makeshift.

161. Next to forest legislation an increase of establishments is the great want. Controlling, executive, and office establishments are all in urgent need of increase.

162. Without a proper number of European officers it is impossible to maintain the active supervision required over the working of the subordinate establishment, who, unless looked after, will soon become lazy, scamping their work, and leaving the forests and trees to take care of themselves at the mercy of wood-stealers, whose name is legion.

163. With the existing complement restricted to one officer per district, and no supernumeraries under training to hold acting appointments when temporary vacancies occur, great inconvenience and confusion prevails when a district forest officer may have occasion to take leave or to proceed elsewhere. This was strikingly exemplified during the present year. When Mr. Morphew fell sick, and had to leave Satara, there was no officer to replace him; consequently the Conservator had to take charge of the

Satara office in addition to his own duties of Controller of the Division, and at the same time he was engaged upon forest demarcation and kumri settlement on the Satara ghâts.

164. Very soon afterwards Mr. Hewett had to leave Kolába, sick; there was no one to put in charge; the Second Assistant Collector and the Collector himself had to take over the district forest office and duties, but these officers had quite enough work of their own to tax their energies and utilize their time, preventing them from paying the close attention to the forests that was necessary when large contracts were in operation; and what was the result? It is expressed in Mr. Crawford's own words when reporting on the Kolába forest frauds: "and *it was after his* (Mr. Hewett's) *departure on leave* that the great *coup* was made by Hanmantráo and Khandoo Dewji's gangs."

165. Shortly after Mr. Hewett's departure the district forest officer of the Panch Máháls was compelled to leave, being too sick with jungle fever to continue performing his duties, and there was no one to relieve him also; the Extra First Assistant Collector had to assume charge of the district forest office.

166. Thus it will be seen that, owing to the sickness of three officers, the control and management of three forest circles came practically to a standstill for the want of proper officers to take their places.

167. In the absence of a numerically effective subordinate staff for executive work, hangami, or temporary establishments, have to be employed, whose chief aim is to make hay while the sun of their opportunity shines; and consequently, as experience has over and over again shown and is daily repeating itself, the forests are depredated, and Government revenue suffers proportionally more than would be the cost of a permanent establishment effective in numbers and constitution.

168. The foresters allotted to each district for the work of patrol and guard are much too few in number. What can be expected of 3 foresters to a taluka containing forests in every of its 200 villages? With such a staff protection cannot exist; it might with equal reason be imagined that 3 police peons are a sufficient number to protect the property and restrain crime in the town of Bombay.

169. Lastly, the office establishment is also too small. An increased number of clerks and kárkuns does not mean increased office work for the head of the establishment, the district forest officer; on the contrary it suggests that he will have more time to

himself during those hours of the day when Europeans in this country are necessarily under the cover of their tents.

170. Proposals for increased and re-organized establishments, controlling, executive, protective and office, have been drawn up and are before Government; and the Conservator trusts that next year he will be in a position to report that a staff effective in numbers and constitution for direction, protection, and working, and more in accord with the great interests that the forests of his division represent, has been sanctioned.

171. Proposals to increase establishments are regarded with distrust, because it is the tendency of all departments to expand and to be ever demanding more expenditure showing apparently unanswerable reasons for so doing. Civilization and progress necessarily require additional outlay, improvements treading in the footsteps of time. But with respect to the Forest Department of this Presidency, the increased outlay proposed on more establishment is not like unto money embarked in costly experiments of hazardous nature, but is expenditure necessary to protect the coffers of the State, the capital that provides revenue, and that will, if properly protected and carefully managed, continue to yield an expanding interest year by year, and at the same time to amplify and improve.

172. During the year under report no increases have been made to the permanently sanctioned establishments, but in several districts it has been found necessary to supplememt them by temporarily entertained guards and watchmen.

173. In the Mándvi Taluka of Surat the forest naka at Khodamba was attacked by a gang of Bheels from over the frontier; the nakedar was severely beaten; and Rs. 26-8, representing collections of firewood fees, were stolen. Government in their Resolution No. 1861 of the Financial Department, dated 8th June, sanctioned the above amount being written off as lost beyond recovery.

174. A reward of Rs. 18 paid by the district forest officer of Tanna to one of his huzur peons Bhowani bin Bapuji, for his honesty in declining to receive a bribe of the same amount offered to him by certain cartmen in order to induce him to conceal the theft by them of teak logs, was sanctioned by Government in their Resolution No. 3334 of the 12th June 1875, in the Revenue Department, with the remark that "in similar cases it will be well to give a portion of the sale proceeds of the recovered property only, and not a cash reward." The stolen teak was seized and sold by auction, the thieves were punished, and one-third of the proceeds of the wood was given to the peon Bhowani.

175. The Conservator suggested to the Police Commissioner, N. D., that circulars should be issued to the several Superintendents of Police, pointing out that it is the duty of their establishments to co-operate with the forest officers in the prevention of plunder in the Government forests, and in the detection of crime and in the recovery of stolen wood. The Police Commissioner forwarded the correspondence to Government with the statement that he was not prepared to issue a circular of the nature referred to; and Government in their Resolution No. 3878, of the 7th July 1875, in the Judicial Department, stated that—

> "They concur with the Acting Police Commissioner, N. D., that it is not desirable to issue a general circular of the character suggested by the Conservator of Forests. It is undoubtedly the duty of the police to render every assistance to the Forest Department in the detection or suppression of crime when called upon to do so, and any omission or remissness on their part in this respect would meet with the serious displeasure of the Police Commissioners, and no grounds are shown for the intervention of Government."

176. Muljee bin Subhanji Nimbalkar, who had been forester 10 rupees grade, of the Satara Collectorate, and dismissed by the Conservator for allowing a contractor to make a wholesale robbery in a forest number of the village of Mándvi in his beat, appealed to Government against his punishment, praying for his restoration to office; but Government, in their Resolution No. 3867, in the Revenue Department, of the 9th July 1875, directed the petitioner to be informed that "they cannot interfere with the decision passed by his departmental superiors after full inquiry."

177. The High Court refused permission to file the special appeal against the decision of the District Judge of Tanna in the suit of Tatiya Deorao Nachané *versus* Rao Saheb Ochavram Madhavram, Mámlatdár of Dáhánu, which Government, in their Resolution No. 1388, of 6th March 1875, had directed to be made (*vide* para. 97 of last year's Report), and consequently the decree of Tanna Court awarding Tatiya Deorao Rs. 750 was directed to be satisfied, and the amount was paid and debited to A. X. 2 in the Tanna accounts.

178. Tatiya Deorao, however, preferred an appeal to the High Court against that portion of the decision of the District Judge of Tanna which disallowed in part the claim advanced by him for damages; and Government, in their Resolution No. 4376, of the 3rd August 1875, in the Revenue Department, directed the appeal to be defended. Up to the close of the year it had not been adjudicated.

179. A timber-dealer of Satara, Esub Ali, had been given by Mr. Blackwell, a former district forest officer of Satara, the contract to cut and remove for his own use all the standing firewood jungle in the village of Kargaon of the Jauli Taluka for Rs. 1,000. But this contractor, instead of confining his axe to firewood trees, commenced cutting building timber until the Conservator put a stop to his operations. A committee was then convened to estimate the quantity and value of the timber unauthorizedly felled by the contractor, and on his refusing to pay the amount assessed, Government, in their Resolution No. 3790, directed that recourse should be had to the Civil Court to obtain the money from Esub Ali. Orders were then issued to the district forest officer to file a suit in the Satara District Court, but up to the close of the year this had not been done.

180. Government, in their Resolution No. 4220, of the 16th December 1875, in the Financial Department, sanctioned the payment of a reward of (Rs. 50) fifty rupees, to be distributed amongst three sepoys of the Tanna Police for their exertions in bringing home to the police patel of Kundé, Taluka Kalyán of Tanna, and his son, the theft of wood, to the value of Rs. 130, committed by them in the Government forest of that village, and directed that provision may be made in the forest budget for rewards of this sort, and for extinguishing and preventing forest fires.

181. The entertainment of a forester on Rs. 7 per mensem to protect the forest reserves in the Khed and Chiplun talukas of the Ratnágiri Collectorate was sanctioned by Government in their Resolution No. 380, of the 26th January 1876.

182. Rewards to the value of 75 rupees were paid, under sanction of Government Resolution No. 681, of the 7th February 1876, to the patel of Jambilgar and villagers who assisted him, for being instrumental in bringing to justice Appa Dhond, patel of Málgaon, his servant Kushal Dina, and others, who were convicted of theft of teak with violence, and were sentenced to undergo seven years' imprisonment with hard labour each, and firewood-cutters received sentences of four to seven months each.

183. In the Tanna Collectorate the cost of the permanent forest staff for protection was Rs. 8,761-0-7, and its average complement—

2	inspectors	at	...	...	Rs. 60
3	do.	„	...	...	„ 50
5	do.	„	...	...	„ 40
2	do.	„	...	...	„ 30
6	foresters	„	...	...	„ 10
10	do.	„	...	...	„ 8
20	do.	„	...	...	„ 7

distributed over 11 talukas and one petha; but this staff is so numerically weak and insufficient for the vast properties to be protected that it had to be supplemented by a temporary staff costing Rs. 6,181-15-7, who were paid from A. IV. 1. c.

184. Ramajirao Jewbarao, Izafatdar of Warsale, was tried and punished as mentioned in para. 93 of last year's Report, and Government sanctioned a reward of Rs. 500 worth of wood to be given to the five men who gave evidence against the Izafatdar, and who, by attending at the Court for the purpose, were put to much loss in not being able to look after their fields and crops in the sowing and harvesting seasons.

185. A complaint was laid against Atmaram Nilkant Tipnis for 616 teak trees in the Bid second-class reserve and 663 in Chincholi-A'tgaon second-class reserve, and a warrant was issued for his apprehension; but up to the 31st March 1876 he had not been arrested.

186. Dorabji Balabhai, a notorious Pársi, was accused of theft from the Government forests of Khorwandi and Barandi, in the Sháhápur Taluka, and sentenced by the Sessions Court to undergo three years' imprisonment with hard labour, and to pay Rs. 1,000 (one thousand) fine, half of which was credited to the Forest Department. This man had been steadily robbing the forests round Wandri, where he had some warkas land in which he kept a little cutting and charcoal-burning always going on in order to cover his thefts. Dorabji had great influence. All people round about Wandri were either in his pay or indebted to him. The police patel of Wandri tried to shield him, and was himself punished with six months' imprisonment with hard labour for allowing carts to go into the Government reserves on payment of fees to him. Although suspicion had attached to Dorabji, and inquiries had been made into his proceedings, and previous attempts had been made to bring home the thefts to him, and not to the wood-cutters, whom he made his working tools, nothing could be proved against him until this case, which was conducted by Sumsheer Aga, a very smart forest inspector, who has, in years past, done similar good service in the Alibág Taluka.

187. This case exemplifies what I have often brought to notice that warkas fields in the midst of forests are made depôts for plundering the surrounding Government property. In the absence of forest law it is almost impossible to prevent theft by holders of occupied land so situated; no control can be enforced over the removal of wood, and no carts can be detained for inquiry. If detention is attempted, the consequence is a case in the Civil Court, and an adverse decision with costs to pay; the *onus probandi*

is on the department, and not on the possessor of the wood. If a cart full of wood is found travelling along in the middle of a Government forest, this department cannot touch it; the stereotyped answer given to all inquiries is "Malki number wood." The only way to obtain a conviction is to prove by disinterested witnesses, *i.e.*, people unconnected with the Forest Department, that the trees were felled in Government forests, and that the possessor was taken in the act. The testimony of foresters is not received as of sufficient weight to convict upon.

188. It is not the *bonâ fide* ryots who are the great plunderers of our forests on this systematic plan, but timber-dealers, wealthy Brahmins, Ghatis, Pársis, &c., who buy for a song the trees on a holding of many hundred acres (which have been made over by Government unreservedly to the cultivator, who pays an assessment of from 1 to 4 annas per acre for the land), and who have the necessary funds to work a large enterprize of this kind, and by keeping in the back ground, and paying well, almost invariably escapes the clutches of the law, unless by some fortuitous chance, as in the case of Dorabji Balabhai, or through over-rashness generated by frequent escapes, an opportunity is given and an example is made of them.

189. The ryot sells his trees for a song, because he knows that the unreserved timber in second-class reserves is open to him, and teak and reserved trees can be had by petitioning to the nearest Mámlatdár, and, therefore, he will be no sufferer by dispossessing himself of the trees on his fields. A son has to be provided with a wife, or a caste feast has to be given, what easier and cheaper way of raising the wind than by selling the trees that have come into his possession without any payment on his part. Many of these warkas numbers are of very large extent, and situated where cultivation is entirely out of place; for instance, the face of the ghâts extending from their basement to their summit, the side of steep hill, like the Máhuli range of Shâhápur, where no sane man would think of cultivating, and where the destruction of trees is opposed to the laws of nature, of common sense, and to the decrees of Providence, and is attended with disastrous consequences to the country and to the people who create the havoc.

190. The remedy is in the hands of Government. Forest legislation and proper protection of forests by an increased and efficient staff and by allowing other measures—the abolition of an unreserved list of trees, let the forests be conserved as they should be, and letprivate wants be supplied from the trees or private lands, the rights over which Government have given up or from the Government forests *on payment*. The people will then under-

stand that trees possess a monetary value, and the effect will be not only a better protection of the State forests, but the protection and spread of arboriculture on private holdings instead of, as at present, a wasteful and sinful destruction of trees.

191. The patel of Kundi and his son were convicted of the theft of 141 teak rafters of the value of Rs. 130, and were sentenced to one year and six months' imprisonment respectively.

192. A water-patrol has been maintained on the Tanna-Bassein creek at Sasunowgarh throughout the year, and has had good effect in checking thefts from the forests bordering the Tanna creek.

193. 857 cases of forest crime were presented for trial during the year, out of which 135 were acquitted. The fines imposed amounted to Rs. 8,034-2-0, and the value of the property recovered to Rs. 3,667-5-6.

194. In Kolába the permanent establishment consisting of 6 inspectors on salaries from Rs. 30 to Rs. 60, and 25 foresters cost during the year Rs. 5,156-14-2. In addition thereto, temporary establishments, costing Rs. 2,066-11-2, were entertained, including a water-patrol on the Nágothna creek.

195. A very extensive system of forest frauds in this collectorate was discovered by the Acting Collector, Mr. Arthur Crawford, as mentioned in para. 211 of last year's Report, by which Government have been very considerably robbed. Several of the subordinates of the department, both of the permanent establishment and the temporarily entertained men, were found to be thoroughly implicated. Every member of the office establishment of the district forest officer was proved guilty, either of dishonestly participating in the plunder, or of concealing the knowledge of the robberies that were going on, or of more serious crimes. The shirestedar, Appaji Gopal Gupté, against whom suspicions were first aroused in August 1875, was transferred to the Conservator's office as a temporary arrangement; he was subsequently suspended on the 26th January 1876, and, after inquiry by the District Magistrate, was committed to the Sessions for trial in two cases: 1st, with Hanmanta bin Madhowji and 14 others, and, secondly, separately by himself, for criminal breach of trust as a public servant, and criminal misappropriation of money. Neither of the cases had been tried out before the close of the year.

196. The second kárkun, Venayak Ramchander Durvé, admitted on oath that he was aware of the shirestedar being unlawfully in possession of Government money; besides this he has tried in every way to screen the shirestedar and to conceal his guilt.

Vernacular records in his possession have been found missing, and were discovered with the dealers who robbed the forests; and the customs' manifests of shipments of wood made by one of these plundering gangs show that a boat-load was consigned to this kárkun. Under these circumstances he was suspended and dismissed the service from the 20th October 1875.

197. The third clerk, Gungadhar Hari Burwé, admitted that he was aware of the shirestedar retaining Government money; he was found guilty of writing false endorsement on vernacular accounts, and of behaving in an untrustworthy manner in other instances. Consequently he was suspended and dismissed from the 24th March 1876.

198. The inspector of Roha, Dwarkanath Succaram, Rs. 40 grade, who had been dismissed the service by the Conservator, at the instance of the Collector of Kolába, for concealing a written report made to him by a forester of robbery by a contractor, is suspected on very strong evidence of being connected with the frauds that went on in the Roha Taluka, and has absconded; but a warrant has gone out after him.

199. His predecessor in Roha, Vishnoo Narayan Vaidya, has been suspended and committed for trial for implication in the Hanmanta frauds.

200. The following foresters of the Roha Taluka were suspended and dismissed the service, for the reason that they were in charge of the forests that were depredated, and must have possessed guilty knowledge of, if not connived at, the robberies that were taking place:—

1. Oomaji Luxmon.
2. Vitoo Tulaji Kondé.
3. Rowji Ramji Kudam.
4. } Two substitutes for permanent foresters absent.
5. }

201. Five temporary overseers entertained on the forest operations were involved in these frauds.

Their names are—

1. Trimbuck Nagawkar.
2. Vishnoo Kolatkar.
3. Moro Trimbuck.
4. Ramchund Mahipat.
5. Mahadevrao.

No. 1 was discharged by the magistrate before committing Hanmanta's case, although strong suspicion existed against him; No. 2 was committed for trial with Hanmanta and company; Nos. 3 and 4 are pardoned accomplices; and No. 5 is on trial in Khundoo Deoji's case.

202. The chief case is that of Hanmanta Madhowji and 15 others, who were committed for trial by the magistrate before the Sessions Court, on the 13th March 1876, on twenty-seven heads of charge of thefts of wood to a large amount during the past three years, with abetment, with bribery, with fabrication of false evidence, and abetment of fabrication. The result of this trial will appear in the Administration Report of 1876-77.

203. Considering that 80 witnesses have to be examined, and over 1,000 documents put in evidence, the importance of the case can be realized, and the patience, energy, tact, and intelligence, with which the inquiries have been conducted by the Magistrate, Mr. Arthur Crawford, can be appreciated.

204. The second important case is that of Khundoo Deoji, a dealer, who contracted for 1,000 candies of firewood in Landor forest of Roba, and carried off 4,600 candies, and sold them in Bombay. Khundoo is under trial by the magistrate; but his partner, Damodhar, has absconded. The forest overseer, Mahadevrao, who had the control of this contract, is likewise under trial.

205. Babun Khan, forest inspector of Panwel, in Tanna, was suspended by the Conservator on the 24th September 1875, on intimation from the Collector of Kolába that there was proof against him of exercising extortion while inspector of Mángaon, in Kolába; subsequently he was put on his trial, but the case did not come on during the year.

206. Mr. Arthur Crawford in another case sentenced Abaji Dhunji, a Mahratta of good family, to one year's rigorous imprisonment and Rs. 300 fine, and another individual to six months' imprisonment; while their two servants were sentenced to three months' and one month's hard labour, respectively, for carrying off 20 large teak trees from a forest reserve.

207. Three other important cases are under investigation in Kolába, viz. :—

1. Wherein Damji Keshao is charged with stealing several thousand teak rafters which have been seized.

2. Wherein Krishnaji Limbaji, the head of a Ghati gang, is charged with having stolen 10,000 candies (of 784 lbs. each) of firewood.

3. Wherein Anaji Vittoji, another Ghati, is charged with having stolen 11,000 candies.

208. In his report on these cases to Government, Mr. Arthur Crawford states that it is perfectly clear that 6,129 teak rafters and 57,077 candies of firewood have been carried off under the nose of the Forest Department, and that Government has lost the entire value of all this forest produce.

209. Janu Mulhari Chawan, a Rs. 7 forester of the Roha Taluka, who was honest throughout and did his duty, was promoted to the Rs. 10 grade forester by the Conservator, the highest departmental promotion open to him.

210. Ninety-two cases of forest robbery were brought up for trial in the Kolába Collectorate; convictions obtained in 75 cases.

211. In Khandesh the permanently sanctioned protective establishment, consisting of 6 inspectors and 19 foresters, costing Rs. 5,208, for the conservation of the forests in talukas, had to be supplemented by 1 overseer and 8 foresters temporarily entertained, and charged against A IV. I. C. for forest protection; while a larger naka staff, costing Rs. 4,608, debited to A. VI., also contributed to the conservation of the forests.

212. The forest inspector, Rs. 40 grade, of Nandurbár Taluka, Munurudin walad Kadir Sahib, was tried along with Waman Ramchander, nakadar of Nandurbár, under Sections 383 and 409 of the Penal Code, for extortion and criminal breach of trust. Both of these officials were convicted and sentenced to two years' rigorous imprisonment, and a fine of Rs. 500 each.

213. In Khandesh 44 cases were presented for trial, out of which 9 failed. Fines realized Rs. 1,718, and the value of property recovered amounts to Rs. 175-6-1.

214. The permanent district forest establishment of Násik, composed of 4 inspectors on Rs. 30 each per mensem and 20 foresters, cost in salaries during the year Rs. 3,336, and was supplemented by one peon on Rs. 7 in the Kalwan Taluka. Twenty-one cases of petty thefts of wood were brought to light, of which 16 were convicted.

215. In Ahmednagar the sanctioned staff, consisting of 3 inspectors and 13 foresters and 1 apprentice, cost Rs. 2,559-13-0 during the year. To aid this establishment, 7 temporary rackwaldars, at an expenditure of Rs. 420-4-0, were entertained to look after plantations. Twenty cases of forest thefts were taken up for trial, of which only 3 failed. Fines imposed aggregated Rs. 49-4-0, and Rs. 21-12-5 worth of material was recovered, of

which Rs. 5 were given as reward to informers. Three of the cases were discovered by forest subordinates.

216. In the Poona Collectorate the expenditure on account of salaries of sanctioned protective staff during the year amounted to Rs. 6,339-4-6. In addition thereto, temporary forest guards, costing Rs. 1,164-1-11, were required to be entertained for the conservation of babul reserves.

217. There has been considerable increase of detected forest offences in the Poona Collectorate. During 1874-75, 117 cases were detected with the result that convictions were obtained in 88, and 29 were acquitted; but during the year under report 290 offences were detected, of which 247 were convicted.

218. One of these only was more than ordinarily an important case, viz., a theft of Rs. 800 worth of superior teak rafters from the forests of Donza, in Taluka Haveli, a village 9 miles west of Poona. The patel of the village, his uncle, his three brothers, three other relations of the patel, a Brahmin named Ganesh, and the forester of the "beat" were brought up for trial before Dr. Fraser, the Railway Magistrate, who, after inquiring into the case, dismissed it. However, it was again brought up before the same magistrate, inquired into with the result that the accused were committed to the Sessions Court. Here Rajoo Patel was convicted and sentenced to 9 months' rigorous imprisonment, and the remaining accused were discharged. The court, however, found that grave suspicion rested upon Balla, the patel of the village. The forester of the beat was dismissed. The assistance of a vakil was enlisted on behalf of the prosecution at a cost of Rs. 220.

219. The Sholápur Collectorate has no sanctioned protective establishment, but temporary hands charged against it are employed in the protection of its babul preserves. Four cases of forest thefts were brought up for trial. Fines imposed aggregated Rs. 2, and Rs. 0-2-6 worth of material was recovered. All these cases were discovered by forest subordinates.

220. The sanctioned district subordinate forest protective establishment of Satara consists of 3 inspectors and 24 foresters, whose salaries during the year amounted to Rs. 3,336. It was necessary to employ, in addition thereto, 3 overseers for the Pátan, Wálwa, and Wai talukas, and other temporary establishments, whose cost aggregated Rs. 823.

221. The forest crimes detected in Satara during the year compare as follows with the figures of last year :—

	Crimes detected.	Convictions.
1874-75	34	28
1875-76	45	34

222. The protection of the Mándvi and other forests of Surat Proper was all that could be desired as far as prevention from thefts was concerned. The forest offences are comparatively few, though in excess of last year's number, which was 1, and they are of a trivial nature. The forests do not show much marks of mutilation or depredation. The Mándvi forests were completely traversed over by fire. The forests in the other talukas of Surat have been free from fires.

223. In the Dangs the forests have not suffered from theft of timber, but nevertheless the destruction of trees has been great. This has been caused by kumri cultivation. The people destroy in a reckless manner, and cut down more than they require without any regard to species of trees : a promising teak sapling as soon suffers as the most worthless tree in a marketable point of view. The absence of all authority, or of the means of punishing offences of this kind in the Dangs, makes the forest establishment powerless to prevent the wide-spread destruction that goes on year after year. Large tracts have been and are being denuded, or are sparsely covered with scorched and mutilated stumps.

224. The people do not confine their kumri to any particular locality, but wander from place to place, destroying as they go. Small patches of kumri are to be seen in most unlikely places, the steep sides of a mountain peak being resorted to as often as the top of a plateau or the level plain in the valleys.

225. The sanctioned forest establishment of Surat Proper consists of 3 inspectors and 21 foresters, and of the Dangs of 1 inspector and 11 foresters. Their cost during the year, including travelling allowance, has aggregated Rs. 5,381-5-11. Temporary establishments are yearly entertained both in the Mándvi forests and in the Dangs for forest working; but they also in many cases, especially those at nakas, serve for protective purposes. Their cost has amounted to Rs. 2,228-3-11.

226. A taláti on Rs. 15 is entertained to keep an account of the cultivation fields that are included in the different forest reserves.

227. The permanent district forest staff of the Panch Máháls consists of—

1 inspector	on Rs.	40
1 apprentice	„	20
4 foresters	„	7 each.

This staff is much too weak for the satisfactory protection of the Government forests and royalties. In addition thereto an overseer on Rs. 20 a month is entertained and paid by A.—"Conservancy

and Working," and a taláti is also employed to keep the accounts, collect the revenue, &c., of the three villages, Achala, Tanna and Nowagaon, which have been handed over to this department. The services of patels of the forest villages in which operations are being carried on are secured in the interests of protection by giving them a percentage on proceeds for watching the timber that is being felled and the forests generally. Fifteen cases of forest crime were detected during 1875-76 in the Panch Máháls, and the prosecutions succeeded in every case.

228. The payment of shares to khotes and ruckwaldars, who have entered into agreements with the Forest Department to conserve the forests in their villages, receiving for so doing a share of the proceeds when produce is sold, during 1875-76 has not been so heavy as in the preceding year. In Kolába payments have been stopped, owing to the inquiries that have been conducting into the forest frauds, to so many of the subordinates being under suspension, and to the office records having been removed for inspection by the magistrate. The disbursements have been as follows:—

	Rs.	a.	p.
Tanna	89	5	0
Kolába	1,928	11	10
Ratnágiri	156	6	9
Poona	2,929	10	11
Total Rs...	5,104	2	6

Add to this Rs. 14,421-15-6, the Dang lease money, and then the total expenditure against A. V. will appear Rs. 19,526-2-0.

229. "Law charges" again constitute a heavy item in expenditure amounting to Rs. 29,694-12-1, which is distributed as follows:—

	Rs.	a.	p.
Tanna Collectorate ...	5,086	4	6
Kolába do. ...	21,108	13	0
Ratnágiri do. ...	3,173	11	4
Poona do. ...	222	0	0

230. During the year 857 cases of forest offences were presented for trial. Convictions obtained in 722. The fines imposed on the offenders aggregated Rs. 8,081-2-0, and the value of the wood that was recovered amounted to Rs. 3,667-5-6. Contrasted with the preceding year there is an increase in the number of cases detected. 526 cases were brought up for trial in 1874-75. Convictions were found upon 398 of these, which is 324 less than the number of convictions secured during the year under report. The fines imposed in 1874-75 were to the amount of Rs. 2,360-9-0, or Rs. 5,673-9-0 less than the fines of 1875-76, and the value of the wood recovered was Rs. 2,893-11-8 less than the value of the recoveries during the present year.

CHAPTER V.

MANAGEMENT AND IMPROVEMENT.

231. This chapter records the progress made during the year in—

(*a*).—Plantations, including reboisement of denuded areas.

(*b*).—Cutting creepers and eradicating prickly-pear.

(*c*).—Fire protection.

(*d*).—Communications and buildings.

232. In the budget estimate of the year 1875-76 submitted by the Conservator, Rs. 29,068 had been provided under A. IV.—"The cost of treatment and creation of forests;" but the Government of India, when sanctioning the estimate, reduced these figures very considerably. Their remarks in the matter read thus: "For the improvement of natural forests and for plantations Rs. 29,068 are provided for under A. IV. The operations are fully detailed, and would doubtless all be useful; but it is necessary to restrict them, and Rs. 10,000 can only be allowed on that account. One advantage in this reduction will be that more of the time and services of forest officer will be available for demarcation work, which at the present time is more important. The amount admitted will cover the outlay contemplated for additional protective establishments in the Tanna forests (Rs. 8,562), which the Conservator states is necessary."

233. Thus it will be seen that, after deducting Rs. 8,562 for the cost of supplementary protective establishments in Tanna, Rs. 1,438 only remained; but more than this amount was required to pay the cost of watchmen entertained in the Kolába, Ratnagiri,

Khandesh, Satara, Poona, and Ahmednagar collectorates to guard babul reserves and other plantations made in former years. It would have been most unsound economy to have discharged all the watchmen on these properties, for then the outlay already incurred with satisfactory result would have been thrown to the winds. Under these circumstances it became necessary to curtail as much as possible, compatible with safety, the expenditure in Tanna upon supplementary protective establishments, which was accordingly reduced to Rs. 6,185-15-7, exhibiting a saving of Rs. 2,376-0-5, which sum, together with transfers from other budget heads, was diverted to pay for such limited planting operations as were actually necessary and could not be neglected, and for the salaries of watchmen, &c.

234. The advantage expected by the Government of India to accrue through reducing grants for planting operations can in no way be realized, for the reason that planting operations are carried out during the rainy season when the services of forest officers are not required for demarcation work. Therefore the interests of demarcation are in no way served or its progress furthered by stopping planting works; the only result of this proceeding is that the most important duty of increasing the productiveness of natural forests and of creating artificial forests, where there is a dearth of wood, in situations and places where tree growth is necessary in the interests of the country, is retarded, and a season is wasted.

235. In his remarks on the Forest Administration Report of last year the Revenue Commissioner, N. D., stated that teak should be planted 30 to 40 feet apart. It is not necessary to inform forest officers that the result of forming teak plantations by placing seedlings at distances of from 30 to 40 feet would be deplorable; but as this report may be read by others who have not professional knowledge in the matter, it would be as well to state that in forming a teak plantation in a place like Laling the great desideratum is to shade the ground as quickly as possible from the direct influence of the sun. Further, the teak, more especially in an exposed situation, is a very slow grower, and, therefore, close planting induces rivalry towards the light overhead, and secures clean, straight stems, which would not be obtained if plants had room to throw out a multitude of branches and grow bushy.

236. Again, the Revenue Commissioner upon the subject of broad-cast sowing states that "seed sows itself broad-cast; it does not require the agency of a department for this purpose. A much more expensive mode of plantation is required in order to secure success, and if anything worthy of the name of forest conservancy is to be expected, the necessary funds must be provided." But this

remark is misleading; for seed to sow itself presupposes the existence of trees upon the land sown over, for without trees there can be no seeds. Natural reproduction is not possible in all situations and circumstances; very extensive blanks cannot be covered without the aid of man. Broad-cast sowings of seed in this division are made over bare and denuded hills, where there are no trees to reproduce their species. They are made over extensive blanks in forests where natural reproduction is inoperative owing to the size of the blanks, or else is a very slow process; finally, they are made in scrub and other forests, where it is proposed to introduce a better class or different species of trees to that now growing; for instance, seeds are brought from Kanara, from Tanna and Guzerat to the Deccan, babul seed is obtained from Sind, bamboo seed from Central India and the Berars, &c., &c.

237. The great advantage of broadcast sowing is that it enables a very large area to be operated over at small cost, which could not be done under any other system of planting. The cost of sowing ten thousand acres broadcast would not cover the expenditure that would be incurred upon 100 acres under the nursery system and transplanting. But it must be mentioned that, in order to attain successful results, it is essential that cattle should be kept out of the portions thus sown over until the ground is well covered and the plants are tall enough to escape damage by cattle, and that the seedlings produced be protected from the sickle of the "ráb-cutter" and the axe of the firewood collector.

238. The year's history of the operations in each forest circle will now be given *seriatim*.

TANNA.

239. Six and a half acres of No. 3 railway fuel plantation were ploughed and sown with babul; the seed germinated freely, and the plants are doing well. Forty acres additional were weeded, and 20 acres were sown with babul in drills with fair success, the rest being sown broad-cast. Plantation No. 2 was sown throughout broad-cast with seed. Blanks inside forest reserves in all the talukas were similarly treated. Rs. 552-10-0 in all were expended upon actual plantation work in the Tanna Collectorate during the year, including Rs. 9-4-0 for sowing both sides of the road from Pálghar and Máhim, and the total expenditure under A. IV. in this circle amounted to Rs. 6,752-9-7.

KOLA'BA.

240. The Rajwadi plantation near Mhár, which is completely stocked, continues to improve; beyond the cost of the watchman entertained for the protection of this property, very little other expenditure has been incurred upon it during the year.

241. The nursery of young trees in the compound of the district forest officer at Alibág was duly preserved and added to; the young plants consist chiefly of casuarina, bhendi, and mango. A number of casuarina seedlings were planted out along the boundary line of the Sagurgarh reserve at a cost of Rs. 46-4-0.

242. Mixed seeds of forest trees were collected locally, and were in some cases imported and sown plentifully broad-cast over blanks and vacant spaces inside the forest reserves in the various talukas of the district. The Kolába expenditure under A. IV. comes to Rs. 229-3-10.

RATNA'GIRI.

243: Rs. 15-7-6 were expended in planting out 1,571 casuarina and 115 eucalyptus seedlings in the Dápoli plantations; 360 of the former and 26 of the latter died. The growth of teak in this plantation is very slow, but the casuarina and Australian blue and red gum plants are doing well; some of the latter are over 15 feet in height. These plantations are divided into five plots, three of them adjoining each other and the two some way off.

244. Plot No. 1 of 9 acres and 36 guntas contains 7,403 plants—

	Seedlings.		Seedlings.
Teak	7,200	Jambool... ...	20
Khair	80	Libi-dibi... ...	30
Mango	50	Cashew-nut ...	10
Kinac (acacia procera)	7	Ain	6

245. Plot No. 2, called the "Injali Bagh," of 26 acres, contains 9,470 seedlings, viz. :—

Casuarina	... 1,211	Phunnus...	... 6
Jambul	 111	Tamarind	... 398
Ain ...	... 2,082	Shewan ...	... 52
Kinac ...	... 1,300	Mango ...	... 353
Hirda ...	... 50	Logwood	... 60
Yehela ...	... 521	Chera ...	... 95
Khumbeh	... 20	Eucalyptus	... 89
Blackwood	... 498	Nana ...	... 20
Tannus...	... 30	Teak ...	... 1,915
Libi-dibi	... 1,915	Kurrunj ...	... 17
Khair ...	... 325		

246. Plot No. 3 of 8 acres contains 3,030 seedlings of mixed trees, teak predominating.

247. Plot No. 4 of 25 acres and Plot No. 5 of 30 acres contain respectively 146 and 286 seedings of junglewood trees.

248. The enumeration of seedlings given above must not be accepted as absolutely correct; it is very difficult to count the exact number of plants of different species in a mixed plantation. There is generally a tendency on the part of the subordinate executives to show a more sanguine aggregate than actually exists on the ground.

249. These Dápoli plantations cannot as yet be considered very successful, though the results are very far from unsatisfactory. The situation is very exposed; the full force of the monsoon wind and rain beats over the plantations; there is no shade except such as the seedlings themselves are now affording, and no protection against high winds beyond the hedge enclosing the plantation, under the lee of which plants are doing excellently. Now that the ground is being covered, and the growth is getting denser, there will be a steady, marked annual improvement in the condition of these properties.

250. In the southern talukas of the Ratnágiri Collectorate Rs. 43 were expended upon planting works in connection with the reserves in the Málwan and Rájápur talukas.

251. The Bandh reserves of Dápoli were broad-casted with seed over blanks and where necessary, and the sides of the Bandh forest road were planted with trees either by slips or seedlings.

252. The expenditure under A. IV. in the Ratnágiri Collectorate during the year amounted to Rs. 183-9-9.

KHANDESH.

253. Plantation work was here confined to three reserves, viz.:—

1. The Transpurna reserve in the north-eastern corner of the collectorate on the Nimar and Berar frontiers.
2. The Patna reserve in the Chálisgaon Taluka; and
3. The Laling reserve near Dhulia.

254. In the Transpurna reserve the last block of the 1,246 acres of cultivation fields and open lands that were absorbed in the reserve when it was demarcated, and were divided into three blocks for planting in three successive years, was operated over, by being ploughed in furrows 5 feet apart and sown with Sind babul and anjan (hardwickia binata) seeds, which germinated freely, and at the end of the year formed a dense cover.

255. The results of the sowing of 1873-74 appear in plants 4 to 6 feet high, very healthy and promising; of 1874-75 in plants of 3 to 5 feet; and of 1875-76 in plants 2 feet high by 31st March. The expenditure incurred for the year under report amounted to Rs. 49.

256. In the Pátna reserve 389 acres have been planted with babul, teak, anjan, ain, and casuarina, at a cost of Rs. 435. The teak seedlings were raised in nurseries and transplanted, not in the usual acceptation of the nursery system, but somewhat on the principle of rice cultivation. The nursery forming a part of the area to be planted over in the following year; the seeds, too, were not sown very closely together, so that when the transplanting took place the nursery was thinned out. At the time of sowing the nursery, it and the area for the transplants were sown broad-cast with seeds of other forest trees which germinated, and the teak transplants were put down amongst them in blank places. Grass and weeds were cleared out round the more promising of the seedlings, to save them from the risks of fire and the sickle of the grass-cutter. Casuarina plants were put down round the boundary marks of this reserve, and are doing well. With care and attention the Pátna reserve will become a very promising property.

257. In the Laling reserve about 100 acres were sown with teak and other seedlings, and nurseries for future transplanting were likewise formed.

258. Large collections of mixed forest tree seeds were made in the Khandesh Circle as usual, which were sown broad-cast in the reserves by the establishment during the rains. The expenditure of 1875-76 under A. IV. amounts to Rs. 1,177-2-0.

NA'SIK.

259. No new plantation works. have been undertaken. The old plantations at Nándgaon and Násik have been maintained, extended, and improved. The former contains bukayan plants three years old, and 25 to 30 feet in height. The expenditure incurred was for watering during the hot weather of 1875 and for repairs to the fence. These cost Rs. 132-2-11.

260. The Násik plantation consists of about 7 acres of the Belgaum reserve, 7 miles from Násik. The plants are doing well. No casualties occurred during the year. There are about 3,000 teak, blackwood, tiwas, khair, bhendi, babul, and casuarina seedlings intermixed; otherwise the land is devoid of cover and shade. The rainfall is about 20 inches. Expenditure during the year Rs. 169-4-0.

261. Large quantities of seed were locally collected, were imported and sown broad-cast over hills at a cost of Rs. 36-15-5.

262. The total expenditure of the Násik Circle under A. IV. amounted to Rs. 338-6-4.

AHMEDNAGAR.

263. Blank places, measuring 55 acres in the Chimblé reserve of Shrigonda, were ploughed and sown with babul, bore,

and limb seeds at a cost of Rs. 25; the seeds germinated freely, and about 20,000 plants were surviving at the close of the hot weather.

264. In the Wangdari reserve 500 jambul and a few nim and mango plants were raised in a nursery by the forest guard without expense, and were planted out and watered; at the close of the year 175 jambul, 30 nim, and 5 mango plants were surviving. The forest guard, through whose carelessness and inattention the other seedlings died, was fined and dismissed.

265. Six acres of open land in the Elpaneh and 3 acres in the Hangewadi reserves were ploughed in the cold weather at a cost of Rs. 35-8-6, and were sown with Sind and local babul seed; but by the end of the year no germination had taken place.

266. The Hamidpur reserves, 68 acres and 23 guntas in the Nagar Taluka, were ploughed over and sown with babul during 1874-75 (*vide* para. 137 of last year's Report). The germination was very profuse, but the seedlings suffered much by heat and drought. Blanks in this reserve were again ploughed and sown this year at a cost of Rs. 13-13-6; and at the close of the year there were about 50,000 seedlings in this reserve.

267. The experimental nursery is doing very well indeed; it has been extended this year, and has been regularly watered by the forest guard without additional expense. On the 31st March it was computed to contain—

Mango seedlings ...	60—2 to 4′, high.
Jambúl	100—9″ to 2 do.
Nim	100—12″ to 18″.
Tamarind	6—8″ to 12′.
Bor	5—9″ to 18″.
Bhendi...	5—6″ to 12″.
Casuarina	18—1 to 2 ft.

of last year's sowing, and of this year's—

Mango...	100—1 to 2′.
Jambúl	170—4″ to 8″.
Nim	50—4″ to 8″.

268. Three acres of ground in this reserve were ploughed in strips 4 feet wide 8 feet apart to a depth of 2 feet, the grass being rooted out; these strips were sown in the cold weather with Sind babul seed at a cost of Rs. 16, but germination was only commencing when the year closed.

269. Fifty-seven acres of the Shendi reserve were ploughed and sown in the usual manner with Sind and local babul seed at a cost of Rs. 19-13-0, with the result that about 10,000 plants, 4 to 8 inches high, were surviving at the end of the hot weather.

270. It was mentioned in para. 139 of last year's Report that a nursery of 1,000 seedlings had been formed in this reserve. All these were planted out during the year, and 1,250 more seedlings were raised; the cost of both operations amounting to Rs. 21-7-6. Both transplants and seedlings are doing well; some of them have attained a height of 5 feet, and are very promising.

271. In the Narayan Doho reserve the following plants were put down during the rains, and have been tended throughout the hot weather without expense :—

Mango ...	... 100	Nim ...	... 30
Jambúl ...	... 110	Bhendi ...	... 10

They are all doing well, and their average height is about 1 foot.

272. From the experimental nursery in the Dad Budruk reserve of Sangamner (*vide* para. 142 of last year's Report), transplanting operations were carried out this year over 45 acres of ground, about 5,000 seedlings being pitted out, and the ground of the nursery, with 2 additional acres, were prepared and sown. Both transplants and new seedlings are doing excellently. Of the former, mango, nim, bhendi, casuarina have outstripped the other species in growth, and attained a height of 6 feet. The tamarind plants were 1 to 3 feet high, while of the 280 blue gums 30 per cent have died through white ants attacking their roots; the survivors, however, have grown to from 8 to 12 feet in height, and are remarkably fine specimens of their kind. The new nursery contained at the end of the year 3,653 seedlings; the greater part are casuarina of from 1 to 4 feet in height. The existence of an old well was discovered in this reserve; it was dug out, and was found to be 30 feet deep with 12 feet in diameter—all masonry. The upper being in ruins, was re-built at a cost, including excavation, of Rs. 69, and contains water sufficient for two draw buckets to be continually working throughout the year. A pair of bullocks was purchased for Rs. 30, and an additional draw bucket for Rs. 10, and the exotics and indigenous transplants were thus irrigated during the hot weather. The total expenditure on this plantation during the year amounted to Rs. 233.

273. Ten acres in the Pimpri reserve were ploughed and sown with babul seed at a cost of Rs. 9; germination was very free, but high grass choked many seedlings.

274. 400 seedlings of mango, jambúl, nim, and tamarind have been raised in a nursery at Kopargaon without cost to Government for future planting, and large quantities of seed were thrown by hand over blanks in the plain reserves, also in places from which trees have been removed. Several thousand plants

have resulted from this mode of sowing in these reserves that were visited by rain late in the year, and most of them are doing well. This concludes the year's planting history of the reserves of black soil in the plain talukas of Ahmednagar, where trees are excessively scarce, wood in much demand and of great value, a single babul tree often selling for over Rs. 50.

275. Five mountain reserves in the Akola Taluka exhibiting an aggregate area of 3,048 acres 30 guntas, viz. :—

	Acres.	Guntas.
Gurdani	1,292	14
Takli	265	16
Dhokri	911	27
Washereh	579	13

and two in the Sangamner Taluka—Wunkaleh of 971 acres 15 guntas, Pemgiri 1,032 acres and 29 guntas—have been sown broadcast purposely with mixed seeds; and if cattle are kept out strictly, and protection is rigidly enforced, the results of this sowing will be highly satisfactory.

276. Twenty miles of the Karmála road from Ahmednagar outwards were sown on both sides with babul seeds after single furrows had been ploughed; the seeds germinated, but passing goats and sheep consumed the majority, and cattle trod down and destroyed the rest. The cost of this operation was Rs. 30. The soil on the strips sown is black, rich, and deep, and highly favourable to babul.

277. The expenditure under A. IV. in Ahmednagar amounts to Rs. 1,037-3-9.

POONA.

278. There was no money for plantations, but surpluses from other budget heads were transferred to A. IV., and a small amount of work was done with very fair success. Prickly-pear mashed up was used as manure.

279. In the Bhimthari Taluka 51 acres in 9 reserves have been ploughed and sown at a cost of Rs. 165-15-6.

280. In the Haveli Taluka 29 acres in 10 reserves at a cost of Rs. 10-8-0.

281. In Sirur 12 acres in 5 reserves at a cost of Rs. 28-9-9.

282. In Indápur 8 acres in 6 reserves at a cost of Rs. 17-3-0.

283. In the Khed Taluka 5 acres in 2 reserves at a cost of Rs. 8.

284. In Junnar 4 acres in 3 reserves costing Rs. 18-0-8.

285. In Purandhar 2 acres in 2 reserves at a cost of Rs. 3-7-0.

286. All this ground was ploughed and then sown with babul seed with very fair success.

287. Prickly-pear fencing has been set up round several of the babul reserves. The plant is very slow-growing, but answers admirably for the purposes of protection. The cost is about 7 annas per 100 running feet. The reserves thus enclosed are—

Bhimthari.

Rahu.	Hundulwadi.
Wálki.	Ambe (Khurd.)
Nándur.	Nángaon.
Khamgaon (Budruk).	Wurwand.

Delowdi.

Haveli.

Mánjri (Khurd).	Koregaon Múl.
Kolwdi.	Wadi Bolai.
Dongargaon.	Khamgaon(teak).

Bhewri.

Sirur.

Wadgaon Rasai.	Sadulgaon.
Nagargaon.	Babulsar.
Talegaon.	Aligaon.

Apti.

Indápur.

Daiuj.	Kumbhárgaon.
Palasdeo.	Kulas.

Máwal.

Gahunza.	Kulhat.
Sangowda.	Sai.

288. The expenditure on this work amounted to Rs. 1,236-3-8. All these reserves are situated in the plains, and are much exposed to the irruption of cattle.

289. Much attention has been paid to the work of broadcasting seed throughout the hill and mountain reserves of the Poona Circle. The results are satisfactory, and very encouraging. Thirty thousand acres have thus been operated upon during the year.

290. Rupees 26-5-0 were expended in sowing along the sides of the new forest road over the Sakur Petha, in the Máwal Taluka. The results are not favourable, though a good many plants are living.

291. The total expenditure in Poona under A. IV. amounts to Rs. 3,472-8-7, of which Rs. 1,344 represents the cost of forest guards on babul reserves in the plains.

SHOLAPUR.

292. Nearly 42 acres in the 5 reserves of Hatur, Sadepur, Lounghi, Suze, and Virwad of the Sholápur Taluka were ploughed and sown with Sind and local babul seed at a cost of Rs. 143-11-1; the seed germinated well, and the plants are doing fairly, especially in the Sadepur reserve.

293. Twenty-two acres and 11 guntas, distributed over the Gursale, Badalkhor, Kurkum, and Khánápuri reserves of the Pandharpur Taluka were prepared and sown with babul, excepting in Kurkum, where 3½ acres were operated over. The results are very satisfactory.

294. In Taluka Bársi 9 acres and 30 guntas in three reserves of Surjapur, Bhoer, and Kunch were ploughed and sown at a cost of Rs. 103-1-8; in the Kunch reserve especially the seedlings are thriving.

295. Four reserves of Biturgaon, Jinte, Shingewadi, and Surali, in the Karmála Taluka, had 15½ acres ploughed and prepared for sowing, and sown with Sind babul, at an expenditure of Rs. 61-10-7. The plants are doing well.

296. Six acres and 28 guntas in Taluka Mádha were likewise ploughed and sown, costing Rs. 30-6-9. The young plants in the Darphul and Luveh reserves are doing well; but germination has not taken place in the Uplai and Tandulwadi reserves.

297. The total expenditure in Sholápur under A. IV. amounted to Rs. 809-4-4.

SATARA.

298. The only regular plantation attempted was in connection with a vacant plot of ground within cantonment limits of Satara, near the Sudder Bazaar. This was ploughed and sown with Sind babul seed, which sprouted freely, but have not thriven well; a living hedge was put up round the number. The total expenditure incurred upon this sowing and fencing was Rs. 86.

299. Twenty miles of road sides were sown with babul for Rs. 8-12-0, and the usual broad-cast sowings of hill-slopes were made.

300. The outlay under A. IV. of Satara amounts to Rs. 766-10-9; but of this sum Rs. 671-14-9 represents the wages of overseers employed permanently in executive charge of the Wálwi, Pátan, and Wai talukas—the existing sanctioned establishments being excessively weak in numbers, and consequently utterly inefficient.

301. GUZERAT CIRCLE—(SURAT and DANGS).

302. No plantation works have been undertaken for want of funds, excepting the sowing of babul seeds along both sides of the Dang forest road from Kutthrote to Tarpada, about 16 miles, at a cost of Rs. 14-15-6. The seedlings are reported to have all died, but the Conservator considers that this will be found to be a misapprehension. The babul planted in 1873-74 has established itself firmly in all hollows and low levels, and is now 15 feet high, whereas the sowings on the higher levels and bad soil have failed.

303. The only expenditure under A. IV. is Rs. 14-15-6.

304. NORTHERN CIRCLE—(KAIRA and PANCH MA'HA'LS.) Planting was carried in the Pipulwada plantation near Thásra, in Kaira, and on the railway strips between Wásad and Boravi on the B. B. and C. I. Railway. In the former nearly 18½ acres were prepared and sown with babul, teak, sadra, bibla, and casuarina. The first and last named only germinated, and the casuarina seedlings were at once attacked by a beetle, which, in spite of efforts made to stop its ravages, ate up every plant. The babul has succeeded very well. A cactus hedge was erected round this plantation.

305. Twelve miles of the railway strip—7 to the south and 5 to the north of A'nand—were sown with babul, in pits dug in rows 15 feet between each row.

306. The expenditure incurred under A. IV. amounts to Rs. 611-15-11, which includes the cost of a temporary overseer and watchman.

(*b.*)—"*Eradication of Prickly-pear*" *and cutting Creepers.*

307. No expenditure was incurred upon cutting creepers, though much work was done in clearing trees of creepers by the district establishment, who are provided with tomyhawks, and have strict orders to sever every creeper they find injuring trees in the forests.

308. In the Ahmednagar Collectorate prickly-pear was eradicated from the inside of the following forest reserves in the plains:—

	Acres.	Guntas.	Cost. Rs.	a.	p.
Hangewadi	12	10	... 112	15	6
Elpaneh	6	...	... 37	9	6
Garh	4	...	... 25	0	0
Chimbleh	6	...	... 40	14	0
Wangduri	1	...	... 13	1	6
	29	10	... 229	8	6

309. The prickly-pear in these reserves was not occupying one spot only but was scattered in clumps all over them.

310. Some of the prickly-pear that was removed from the inside of the reserves was laid down upon their boundaries to form a living hedge, which it effectively does.

311. In the Poona Collectorate the following reserves in the plains were cleared of prickly-pear at the cost given:—

	Acres.	For Rs.	a.	p.
Rahu	56	... 253	10	6
Ambli (Khurd)	62	... 77	8	9
Wadi Bolai	7	... 300	15	0
Alligaon	4	... 101	6	1
	129	... 733	8	4

312. By clearing out the prickly-pear considerable areas are released for grass-grazing and planting: increased receipts are thus obtained from grass, and the expenditure incurred upon the eradication becomes at once remunerative.

(c).—*Fire protection.*

313. Sufficient attention is not yet paid to the prevention of forest fires which do great damage, and are often kindled wilfully by people trying to create dead wood; carelessly, by travellers dropping the fag end of a cigar into dry and inflammable grass; by the jungle inhabitants burning the grass under mhowra trees; and in many other ways.

314. In the Northern Konkan, Tanna, fires are very frequent and general—in fact, from the end of February to the rains there seems to be a constant endeavour to create the largest and quickest fire; the forests of the collectorate, with few exceptions, are traversed *yearly* by fire. Kolába is more fortunate. Here the villagers assist in keeping down fires. The Ratnágiri reserves

are very small, and are seldom touched by fire. Khandesh, Násik, the Guzerat forests of Surat, the Dangs, and Panch Máháls are regularly burned every year; while the forests of the other Deccan collectorates—Ahmednagar, Poona, and Satara—are rarely visited by fires.

(d).—Communications and Buildings.

315. In the Tanna Collectorate the naka houses at Sanján and Dáhánu bunders were repaired at a cost of Rs. 4-9-0.

316. A considerable depression in the compound of the forest officer's house at Alibág, which during the rains formed a pool of stagnant water, breeding disease, was filled up at a cost of Rs. 225. The usual repairs to the district forest officer's house and other forest buildings in Kolába were made.

317. In the Ratnágiri Collectorate the Dápoli and Bandh forest road was repaired in places after the rains. One culvert that had burst and been washed away was re-built. The house in the Dápoli plantation was thatched and repaired.

318. An approrach to the district forest officer's house at Násik was made for Rs. 200, and some slight repairs were also made to the house itself.

319. A further length of 2½ miles 421 yards of the Bhorkas and Lanauli forest road has been constructed at a cost of Rs. 736-4-6. This road was again this year used for forest purposes, and forest produce in its vicinity is realizing enhanced prices.

320. The Dang forest road from Chimkul to Kukeri, 41 miles, was repaired. These repairs consist of first making the road practicable after the rains by filling up places scoured out by water, and re-building embankments that may have been washed away. Late in the season the old ruts are filled with lumps of earth, so as to oblige the cartmen to take a new track on the road, and not to keep on to the old grooves, deepening them, and thus destroying the road.

321. An old timber drag from Raiwad on the main Dang road has been made practicable for carts into the Koita Dang. This feeder was much required, as the timber for the Koita Dang had only an outlet through the Gaekwar's territory by way of the Khaijai naka, and was obliged to pay toll. Now no toll is required, the wood all passes on the Dang road, and then out through Bansda territory.

322. This shows what good can come of a little judicious expenditure (the Koita feeder cost Rs. 197-0-6,) in opening out the country. There are numerous timber drags all over the Dangs, which can be made practicable for carts at small cost by smoothing away difficult places. The Purna Valley requires to be thus opened out.

323. The total expenditure of the division during the year 1875-76 upon works of forest creation and improvement is as follows :—

A. IV.—Cost of the Treatment and Creation of Forests.

	Rs.	a.	p.
1. Natural forests—			
(*a*). Protection from fire ...	126	11	10
(*b*). Fencing and enclosing :..	1,260	0	5
(*c*). Improvement and conservation	10,095	3	4
(*d*). Reboisement	906	5	1
2. Artificial forests—			
(*a*). Formation	1,720	1	4
(*b*). Protection from fire ...	.....		
(*c*). Improvement and conservation	1,294	0	8
(*d*). Fencing and enclosing ...	44	10	9
Total	15,447	1	5

A. VII.—Works of Utility for the development of Forests.

	Rs.	a.	p.
1. Roads and bridges	2,135	4	8
2. Buildings and offices	813	12	6
3. Compensation for land ...	6,377	11	3
4. Other works	238	13	4
Rs.	9,565	9	9

324. It is incorrect to call all the above expenditure unproductive. In the account sense of the term it may be so, but at the same time it is remunerative: for instance, sums of money expended upon a road that at once results in an increased price for timber, or upon the eradication of prickly-pear, at once followed by enhanced prices for grass, cannot be called unproductive.

325. It is very necessary in the interests of Government financially and in the interests of the people and districts that expenditure upon plantations and works for improving and opening out forests should not be grudged. Extravagance should, of course, be checked, but well-considered and judicious expenditure should be encouraged.

326. Government, in their Resolution No. 281 C.W. 684 of 1875, dated 20th April 1875, in the Public Works Department, sanctioned the payment of Rs. 2,500 to the Deputy Conservator of Forests in charge of the Dangs from the Provincial Service Budget of the year, for the purpose of sinking wells to provide wholesome drinking water along the Dang forest road, and directed that a like sum of Rs. 2,500 should be entered in the Provincial Service Budget of 1876-77. For the continuance of this work, Rs. 2,494-12-11 have been expended this year; thus—

	Rs.	a.	p.
Well at Wagai completed ...	844	10	9
Do. Kakarda	802	13	0
Do. Chimkle	614	13	6
Well partly dug at Pimpri ...	93	4	7
Do. do. Gabri... ...	83	11	11
Two wells partly dug at Garvi, but not built up	39	0	0
Miscellaneous	21	10	3
Total Rs.	2,500	0	0

CHAPTER VI.

YIELD AND WORKING.

327. The systems of working are :—

1*st.*—Departmental, *i.e.*, bringing wood to depôts for sale at the cost of the department.

2*nd.*—Contract sales of standing timber to purchasers to cut and remove at their own expense.

The term departmental working has a wide meaning ; for instance, the trees brought to a depôt for sale may have been felled by one contractor on behalf of the department, and may have been removed from the forests and carried to the depôt by another ;

the correct interpretation of the term would be working by hired labour, and not by job or piece work.

328. In every case it is required that the trees to be felled shall have been selected and marked for the axe, and shall be cut and removed under supervision. When sales of standing trees are made, it is required that a register shall be kept of all trees that are marked for the axe, of all trees that are felled, of all that are removed, of the wood brought to depôts, of the measurements and deliveries made to the purchaser. Weekly reports containing this information have to be made to the district forest officer, and no wood is allowed to be removed until it is paid for. Thus the district forest officer should be acquainted with the progress making in each contract operation.

329. The yield of forest produce, as compared with the previous year, was as follows:—

Description of Produce.	1874-75.		1875-76.	
	No.	Candies.	No.	Candies.
Teak logs, green	...	5,771¼	3,843	4,486¾
Do. dead	...	4,838¾	25,933	4,279¾
Do. sotas	749		904	...
Do. pieces	104,534	..	427,222	...
Do. rafters	282,226	...	309,120	...
Blackwood logs	10	...	25	...
Do. do.	..	144	66	128¼
Do. rafters	140	...	...	..
Khair logs (acacia catechu)	..	314½	...	129½
Do. rafters	750	..	165	...
Tanas (dalbergia oojeniensis)	...	121½	128	46¾
Haladwan (nauclea cordifolia)	...	28	469	1,195
Sandalwood	1,771	...	..	...
Sadra or ain logs (terminalia glabra)	...	314½	316	650
Bea (pterocarpus marsupium) ..	...	197½	137	372½
Babul	...	93	...	...
Junglewood logs	4,505	...	3,067	...
Do. squared		143	..	...
Do. rafters	46,264		16,877	
		Sq ft.		
Do. planks	...	2,781		
Kanti	...	.	32	34½
Firewood	..	33,704		73,963
		Pharas.		
Charcoal	..	1,671	...	155
Bamboos	25,15,396	..	16,17,846	. .
Karvi	...	.	40 head-loads.	
Hekal	126 cart loads.		112	do.
Bark of ain tree	...		...	227

330. The Tanna forests yielded the undermentioned quantities:—

Teak pieces	7,678	
Do. rafters	48,358	
Junglewood logs	2,956	
Do. rafters	5,688	
Bamboos	1,250,800	
Firewood	33,523	candies.
Charcoal	55	pharas.
Ain bark	227	candies.

331. *The Kolába Forests.*

Teak rafters	31,611	in number.
Firewood	24,027	candies.

332. *The Ratnágiri Forests.*

Teak sotas'...	216	in number.
Do. rafters	8,939	

333. *The Khandesh Forests.*

Teak rafters	23,165

No account has been kept of the number and quantity of timber and firewood removed by the Bheels under permits.

334. *The Násik Forests.*

Teak rafters	39,577

No returns of firewood have been given.

335. *The Ahmednagar Forests.*

Teak rafters	15,195	in number.
Do. pieces	10,157	do.
Junglewood rafters	6,133	
Firewood	1,486	candies.
Bamboos	855	
Karvi	40	head-loads.
Hekal	112	do.

336. *The Poona Forests.*

Teak rafters	70,633	in number.
Babul firewood	8,305	candies.
Jungle wood pieces	3,591	in number.

337. *The Sholápur Forests.*

Bor and babul firewood ...	438	candies.

338. *The Satara Forests.*

Teak rafters	71,112	in number.
Junglewood	1,465	
Firewood	2,493	candies.

339. *The Dangs.*

	Logs.	Candies.
Teak, green	3,843	4,486¾
Do. dead	25,933	4,279¾
Do. sotas	688	...
Khair	143	129½
Blackwood	60	128¼
Tanas	128	46¾
Haladwan	469	1,195
Sadra	316	650
Junglewood	111	119
Bea	137	372⅓
Kanti	32	34⅓
Bamboos	366,049	...

340. *The Surat Forests.*

Teak pieces	85,316 in number.
Do. rafters	530 ,,
Khair	165
Blackwood	25
Haladwan	5 cart-loads.
Sadra	7 ,,
Firewood	4,673 candies.
Bamboos	142 in number.
Charcoal	100 cart-loads.

341. *The Panch Máhál Forests.*

Teak pieces	324,071 in number.
Firewood	204 candies.

342. In addition to the above, free grants to the value of Rs. 10,917-11-3 were made to the poor classes and to others, but no returns of the number of trees felled have been given.

343. Large quantities of timber and bamboos were felled in the forests of Tanna, Surat, and the Panch Máháls, to supply the city and districts of Ahmedabad with timber and bamboos for the repair of the houses that had been damaged or destroyed by the heavy floods of the Sábarmati River that occurred during the month of September 1875. The indents for this material were very large; but as the supply was not completed during the year, and credit was not received for the value of the wood, no mention of it is made in this Report. The indents required the following:—

	District Indent.	City Indent.	Total.
Teak purlines 22' × 7"	27,000	1,164	28,164
Teak posts 8' × 7"	5,939	82	6,021
Teak rafters 14' × 2" to 4"	372,186	.....	372,186
Bamboos 8' × 1" to 2"	1,888,577	.....	1,888,577

344. The following table will show the revenue obtained from timber during the year, the cost incurred upon its production, and will enable a comparison to be made, between the several districts, of the proportion the cost of working bears to the revenue produced:—

Departmental Working.

Collectorate.	Receipts.		Expenditure.	
	(a) Timber.	(b) Firewood.	(a) Timber.	(b) Firewood.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Tanna	35,176 11 3	20,088 11 6	8,143 14 0	8,522 5 6
Kolába	10,318 0 0	11,522 8 6	5,505 9 5	4,159 10 10
Ratnágiri	1,470 11 0	.....	596 1 4	.....
Khandesh	7,695 12 8	0 10 0	3,817 11 4	.....
Násik	8,580 4 11	146 8 0	2,528 1 8	.....
Ahmednagar	4,171 10 10	299 2 0	748 10 0	114 1 7
Poona	19,074 14 7	10,927 9 8	1,865 5 1	1,556 9 10
Sholápur...	333 10 0	1,450 7 1	40 14 1	197 4 7
Satara	8,111 11 5	1,063 12 0	2,672 2 0	1,066 10 6
Guzerat Circle	4,448 12 0	3,122 4 0	1,575 15 5	15 12 0
Northern Circle	6,880 15 4	58 10 3	4,512 2 3	.....

345. Sales of trees standing to purchasers to fell and remove:—

Collectorate.	Receipts.		Expenditure.	
	(a) Timber.	(b) Firewood.	(a) Timber.	(b) Firewood.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Tanna	22,441 0 4	30,131 11 0	1,923 12 2	2,695 12 5
Kolába	7,453 7 0	4,383 8 7	154 4 0	1,468 14 1
Ratnágiri	138 5 5	44 8 6	.. ...	.....
Khandesh	14,722 10 5	7,821 12 9	.....	.....
Násik	3,802 1 5	1,632 6 6	8 8 5	....
Ahmednagar	290 1 6	912 4 3		9 5 0
Poona	914 6 6	540 11 6	.. ..	.....
Sholápur	.....	60 9 0	..	... ..
Satara	267 12 0	.....	....	.....
Guzerat Circle	75,847 9 9	2,920 11 10	1,279 15 1	937 8 0
Northern Circle	2,162 13 2	615 13 2	.....	.. ..

346. A brief account of the operations in each district will now be given.

Tanna.—The Máhim forests of Wára and Pála were worked for teak rafters with the yield of 4,892, which were carted to Manur bunder and then sold by auction for Rs. 4,913-8-0. The cost of this operation amounted to Rs. 1,374-5-0, made up of—

	Rs.	a.	p.	
Felling	347	6	4, or Rs.	7 per 100.
Carting...	782	6	5, or „	16 „
Supervision	244	8	3, or „	5 „

1,433 candies of khair firewood were cut in the forests Gaidaun and Dekale and carted to Dáhisar bunder, and sold by auction for Rs. 3,005, or about Rs. 2-1-6 per candy of 784 lbs., the cost being—

	Rs.	a.	p.	
Felling	277	6	6, or as.	3-1 pie per candy.
Carting	716	8	0, or „	8 „
Total ...	993	14	6, or a trifle over 11 annas per	

candy.

1,237 ain trees were likewise felled in these forests and carted to Dáhisar bunder, where they sold for Rs. 835, or Rs. 67 per 100, their cost being—

	Rs.	a.	p.		Rs.	a.	p.
Felling	144	10	0	Rate	11	10	0
Carting	154	10	0	per	12	8	0
Supervision ...	141	8	6	100	11	10	0
Rs.	420	12	6				

The supervision over this operation likewise extended at the same time over the khair firewood cutting made in the same forests.

In Taluka Dáhánu the forests of Gowne, Sakre, Wunnae, Raitulle near Wangaon Station, B. B. and C. I. Railway, and Wángaon and Souta bunders were worked for teak—10,415 rafters and logs being felled; of these 2,015 were sent to Ahmedabad for flood relief purposes, and of the remainder 6,000 were sold by auction at Wangaon for Rs. 8,655, and 1,800 remaining in the village of Raitulle were sold for Rs. 2,000. The cost of this operation was as below:—

	Rs.	a.	p.		Rs.	a.	p.
Felling ...	530	6	0	Rate	5	2	0
Carting ...	1,327	12	0	per	12	10	0
Supervision...	128	5	8	100	1	3	0
Total cost...	1,986	7	8		19	0	0

The Ahmedabad wood being excluded from account, the average per 100 of the sale receipts is almost Rs. 127.

1,944 ain trees were felled in the Dabhor and Raitullo forests, and sold there for Rs. 583-3-3, or Rs. 30 per 100, their cost being Rs. 337-10-4, or nearly Rs. 18 per 100.

In taluka Bassein the forests of Chandansar, Shrigaon, and Dáhisar were worked for teak rafters, giving an yield of 15,478; of these, 3,600 were sent to Ahmedabad, 11,878 were sold by auction for Rs. 9,205, and 150 selected logs were supplied to the Salt Department for Rs. 409, and out of the loppings some large pieces suitable for crooks and knees sold for Rs. 586.

The cost of the above operation was—

	Rs.	a.	p.		Rs.	a.	p.
Felling ...	711	1	6	Rate	4	9	0
Carting ...	1,842	0	0	per 100	11	14	0
Supervision	251	4	1	trees	1	10	0
Rs.	2,804	5	7	Rs.	18	0	0

exclusive of the Ahmedabad wood, which was all selected; the receipts averaged Rs. 81-8-0 per 100.

2,100 ain trees were also felled in the Tillehe forest, and sold by auction for Rs. 53 per 100, realizing Rs. 1,110; their cost being Rs. 397, distributed thus:—

	Rs.
Felling	250
Carting	147

2,623 candies of khair firewood were cut in the Battana and Sakwar forests and carted to Kanewre Bunder, where they sold for Rs. 5,300, or Rs. 2-0-4 per candy of 784 lbs., their cost being—

	Rs.	a.	p.		Rs.	a.	p.
Cutting ...	607	10	0	Rate	0	3	8
Carting ...	1,321	12	0	per	0	8	0
Supervision	394	2	6	candy	0	2	5
Weighing ...	125	8	0	of 784 lbs.	0	0	9
Total Rs.	2,449	0	6	about Rs.	0	12	10

There is very considerable manufacture of sugar in the Bassein Taluka; and with a view to supply the manufacturers with wood for boiling their sugar, old, crooked, and diseased trees were felled departmentally in the forests; the rafters and poles, knees and crooks were removed and sold, and then the sugar-boilers were allowed to remove the firewood on a fee of Rs. 1-8-0 per cart. The contents of several carts were weighed and were found to average 2 candies of 784 lbs. (*N. B.*—These carts are much larger than the ordinary Konkan carts.) 7,130 candies of firewood were thus removed, the price paid for it being Rs. 5,347-12-6, while the cutting cost Rs. 1,070-11-6, or 2 as. 4 pies per candy.

In Taluka Murbád the forests of Hirégarh, Asosé, Wadhu, Kherewli, and Chikhle were worked for teak rafters, with the result that 6,218 were brought into the market for Rs. 1,116-13-4, or Rs. 18-11-0 per 100, and 6,115 of them sold for Rs. 6,724-4-0, or nearly 110 per 100. Their cost was divided thus—

	Rs.	a.	p.
Felling	361	11	6
Carting	529	15	9
Supervision	275	12	1

In Taluka Salsette 1,095 candies of babul were felled in the forests of Dáhisar Borewli, and the wood was carted to Dáhisar station, 3 miles, where it sold for Rs. 2,212, or a little over Rs. 2 per candy. Their cost was as under :—

	Rs.	a.	p.		Rs.	a.	p.
Felling	219	4	0	Rate per candy.	0	3	2
Carting	342	3	0		0	5	0
Weighing	45	4	0		0	0	8
Supervision	79	12	2		0	1	2
Total...Rs.	686	7	2	about Rs.	0	10	0

And from the Casimira forests 820 candies of mixed firewood were cut and carted to Ghorbunder, where they sold by auction for Rs. 1,491, or Rs. 1-13-0 per candy, their cost being—

	Rs.	a.	p.		Rs.	a.	p.
Cutting	208	14	0	Rate per candy of 784 lbs.	0	4	0
Carting	563	12	0		0	11	0
Weighing	35	0	0		0	2	3
Supervision ...	79	12	2				
Rs.	887	6	2	Rs.	1	1	3

The roughness of the country and the high price of labour in Salsette is the reason for the high average of cost of this operation.

5,754 teak trees were felled in the Bhiwandi forests, and removed by the purchasers, who paid Rs. 4,330-3-9 for them, the cost of supervision being Rs. 147-10-8. All these trees were previously selected and marked for the axe.

832 teak trees were thus felled and removed from the Rohide and Nándgaon forests of Sháhápur, the price of which came to Rs. 551-9-7, while supervision cost Rs. 65-11-4.

3,330 candies of dhowra firewood was felled and brought out of the Ajnup and Dahiwli forests of Sháhápur, and realized Rs. 1,850.

Bamboos in the Tanna forest produced a large revenue amounting to Rs. 13,509-11-1; this was collected under two systems of working :—

1*st*.—Purchasers standing in the forests, who had to cut and remove them at their own expense, the realizations by this means being Rs. 9,880-5-4. The quantity removed and the rates are as below:—

Taluka.	Rates. Rs.	a.	p.	No. felled this year.	Realizations. Rs.	a.	p.
Dáhánu	Nil.			Nil.	400	0	0
Wara ...	3	4	0	185,467	4,457	14	10
Last year's ...	1	10	0				
	1	6	0				
Máhim... ...	2	0	0	77,714	1,938	10	6
Last year's ...	1	12	0				
Mokhada ...	1	10	0	113,100	3,083	12	0
Last year's ...	1	8	0				
				Rs.	9,880	5	4

The expense of supervising these operations amounted to Rs. 1,382-0-6, thus:—

	Rs.	a.	p.
Dáhánu	492	3	5
Máhim	541	5	5
Wára	208	11	8
Mokhada	139	12	0
Rs.	1,382	0	6

2nd.—For local consumption on fees of—

	Large Bamboos.	Small Bamboos.
Large cart-load ...	1 Re.	12 annas.
Small do. ...	8 as.	6 ,,
Head-loads ...	1 anna	...

The number removed and the collections made under this system are as follows :—

		Rs.	a	p.
Dáhánu forests ...	170,335	906	14	0
Máhim do. ...	281,520	913	15	0
Bassein do. ...	160,955	738	8	0
Bhiwandi do. ...	18,600	58	2	0
Wára do. ...	137,920	521	14	0
Sholápur do. ...	95,187	490	0	9

Dead-wood from the Tanna forests was also removed under contract and for local consumption ; the contract rates were Rs. 1-1-0 and Rs. 1-6-0 per candy, while for local consumption the rates were Rs. 1-2-0 per large-sized cart and from 6 to 9 annas per small, according to the circumstances of the forests. The receipts by the contracts amounted to Rs. 15,742-9-10, with a cost of Rs. 1,517-7-6, while the collections from local consumers came to Rs. 6,726-12-0 at a cost Rs. 763-1-1.

	Rs.	a	p.
Ain and chilhari bark realized...	1,257	14	6
Hirda nuts	1,400	0	0
Karvi	108	6	6

347. *Kolába.*—In the Alibág and Pen forests teak rafters were felled departmentally, by head labour brought to depôts and there sold by auction with the following results :—

	Quantity.	Cost Rs.	a	p	Sale Produce. Rs.
Alibág ...	3,107	1,096	10	10	3,320
Pen	4,641	974	1	3	6,998
Total ...	7,748	2,070	12	1	10,318

Teak trees on malki land were sold standing to be felled and removed at purchaser's expense as follows :—

	Quantity.	Cost. Rs	a	p.	Price. Rs.	a.	p.
Alibág ...	15,126	12	3	0	5,074	15	5
Nágothna ...	1,978	12	3	0	688	13	9
Roha ...	1		...		1	12	0
Mángaon ...	.858	18	6	0	298	10	0
Mahád ...	5,297	64	12	0	1,055	13	10

The firewood operations in the Kolába forests consist of the sales of the teak loppings, which realized Rs. 1,668-11-6, and the sales of mixed firewood to purchasers standing in the forests. The account received of these operations is not sufficiently clear to be intelligible; great frauds were discovered to be obtaining in connection with them, which have been the subject of criminal prosecutions; a quantity of the wood is under detention, a quantity has been removed, and the records containing an account of the operations are still with the Sessions Court.

348. *Ratnágiri.*—The axe in the Dápoli Taluka was confined to old teak stools in the Sarang and Tardil forests, which were felled departmentally and produced:—

	Teak Pieces.	Cost.			Sales.		
		Rs.	a.	p.	Rs.	a.	p.
Sarang...	... 5,834	338	9	7	653	11	2
Tardil	... 3,192	257	7	9	816	15	11
		596	1	4	1,470	11	1

349. *Khandesh.*—23,165 teak rafters were felled in the forests and brought to fixed depôts for sale at a cost of Rs. 3,817-11-4. Sales produced Rs. 7,295-4-8, and there remained 7,909 rafters unsold.

The timber removed by the Bheels, &c., on permits consisted of

Junglewood	...	...	6,325 cart-loads.
Bamboos ...	...	...	4,000 do.
Firewood ...	...	...	24,324 do.

350. *Násik.*—39,477 teak rafters were felled departmentally in the forests and brought to fixed depôts for sale, as will appear—

		Number.	Cost.			Sales.		
			Rs.	a.	p.	Rs.	a.	p.
Dindori forests	...	20,026	1,433	0	1	8,664	9	10
Igatpuri do.	...	9,277	569	12	7			
Kalwan do.	...	8,074	299	5	4			
Sinnar do.	...	2,100	192	0	0			
		39,477	2,494	2	0			

Two permanent depôts have been established in the district, only at Bandardara and Ambli, at which 8,447 rafters were in stock at the end of the year.

351. *Ahmednagar.*—All the operations were carried out departmentally. The fellings of teak extended over the forests of

3 villages in Sangamner and of 10 in Akola with the following results :—

	Teak Pieces and Rafters.	Cost			Sales.		
		Rs	a	p	Rs.	a.	p
Sangamner forests	7,794	187	15	8	1,106	9	0
Akola forests ...	16,734	379	9	8	2,297	10	6
	24,528	567	9	4	3,404	3	6

The jambul " bets " in the Mula River at Lahit Budruk and Bori in the Sangamner Taluka, and Deshwade in the Párner, were thinned with the following result:—4,553 pieces, costing Rs. 181-8-0, which sold for Rs. 662-6-6.

Babul and bor trees were thinned in the babul preserves in the plains, producing 1,486 candies of firewood, which sold for Rs. 988.

352. *Poona.*—The system of working was entirely departmental. The sales were conducted publicly at the several temporary sale depôts, and the material was disposed of to the highest bidder. The yield of the forests and the cost and sale proceeds of the material were as below :—

Teak Rafters and Pieces.

Forests.	Quantity.	Cost.			Sales.		
		Rs.	a	p.	Rs.	a.	p.
Haveli	18,644	618	7	0	6,184	11	0
Khed ...	...		...			...	
Junnar ...	12,414	423	9	9	2,530	4	0
Purandhar	18,767	370	11	9	3,922	0	0
Máwal ...	704	15	14	4	222	11	0
Jambul Wood.							
Haveli ...	1,126	17	6	9	217	0	0
Khed ...	1,070	15	10	6	131	8	0
Junglewood.							
Máwal ...	2,000	32	1	6	139	10	0
Babul.							
	Candies.						
Máwal ...	34	7	14	3	56	10	0
Haveli ...	1,540	379	4	9	2,434	0	0
Khed ...	159	15	12	6	187	9	0
Bhimthari	4,948	890	9	6	6,541	12	0
Sirur. .	1,535	246	2	1	1,652	13	0
Purandhar	18	15	0	0	41	9	0

353. *Satara.*—Teak operations were conducted departmentally; 71,112 pieces, being the shoots from old stools, were brought into the market; of these 43,283 were sold for Rs. 5,917-9-0, or a little over Rs. 13 per 100. The greater part of the teak felled in the Belási forest of Petha Shirala, 27,829 remained unsold.

Of the 2,493 candies of firewood felled, 977 were sold before the end of the year for Rs. 949-4-0, and the balance subsequently for Rs. 769, or at the rate of annas 11 per candy.

1,465 junglewood rafters were felled in the ghát forests of Jauli, but were not sold during the year, and 500 logs remaining over from last year on the banks of the Wárna at Petland are likewise unsold.

354. *Sholápur.*—438 candies of babul were felled during the year at a cost of Rs. 197-4-7; these, with 10 candies and 5 maunds that had remained over last year, sold at auction for Rs. 1,841.

355. *Surat.*—In the Dangs trees are selected and marked for the axe, and then are felled by purchasers and brought to fixed depôts on the frontier of the Dangs, where the logs are measured, stamped, and delivered over to the purchasers. The sales for Dang timber are steadily increasing, as the following table will show:—

Lower Dangs.

Per candy of 12½ cubic feet.

	Season, 1874-75.			Season, 1875-76.			Increase.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Green teak (1st class)	11	0	0	11	4	0	0	4	0
Do. do. (2nd class)	5	0	0	8	15	0	3	15	0
Khair	8	0	0	9	6	0	1	6	0
							Decline.		
Blackwood	7	4	0	6	0	0	1	4	0
							Increase.		
Tanas	5	2	0	6	0	0	1	14	0
Haladwan	2	8	0	3	8	0	1	0	0
Sadra	1	8	0	1	12	0	0	4	0
Bea	1	8	0	1	12	0	0	4	0
Kanti	Nil.			1	8	0	1	8	0
Junglewood	Nil.			1	0	0	1	0	0
	Upper Dangs.								
Green teak	7	4	0	7	12	0	0	8	0

Rs. 52,350 were realized by the sales of wood from the Dangs during the year, and the cost of the establishments at the depôts to measure and mark off the logs, of the overseers in the forests to select and mark the trees, amounted to Rs. 1,172-6-8.

In the Mándvi Taluka departmental operations were attempted for the first time, and the result has been very encouraging, as will be seen from the following figures :—

	Cost.			Price realized.		
	Rs.	a.	p.	Rs.	a.	p.
135 teak beams	136	12	2	303	12	0
3,900 teak rafters	496	5	5	3,685	0	0
1,390 teak posts	106	1	3	614	8	0
	739	2	10	4,603	4	0

Besides the departmental operations, sales of standing trees, the teak from second class reserves and the junglewood from first class were made in small quantities, thus :—

Teak rafters	8,000		at Rs.	32	3	0	per 100	...	Rs.	2,575	0	0
Khair	100	carts	at	„ 7	4	0	per cart	...	„	725	0	0
Blackwood	25	do.	at	„ 7	14	0	do.	..	„	196	14	0
Refuse teak	3	do.	at	„ 3	0	0	do.	...	„	9	0	0
Bamboos	432	do	at	„ 1	8	0	do.	...	„	648	0	0
Do.	10	do.	at	„ 2	0	0	do.	...	„	20	0	0
Khair firewood ...	56	do.	at	„ 0	8	0	do.	...	„	28	0	0
Do. ...	1,285	do.	at	„ 0	12	0	do.	...	„	963	12	0
Do. ...	1	dc.	at	„ 1	8	0	do.	...	„	1	8	0
Sadra fuel	21	do.	at	„ 1	0	0	do.	...	„	21	0	0
Common firewood...	3,215	do.	at	„ 0	4	0	do.	...	„	803	12	0

In the Párner reserve, near Bulsar, one compartment was operated over, 1,404 trees being felled level with the ground at a cost of Rs. 331-8-0, and the wood sold at auction for Rs. 1,266-4-0.

Several miscellaneous sales of wood for local building purposes on payment of seigniorage fees were effected both in the Mándvi and other reserves of Surat, and 145 teak rafters were supplied to the Police Department on payment of their price—Rs. 96-4-0.

356. *Panch Máháls* (*Kaira*).—324,071 teak pieces and 204 candies of firewood comprised the yield of the Panch Máhál forests at a cost of Rs. 4,512; all this material was not sold, but 303,055 teak pieces, 429 teak sotas, and 243 candies of firewood, which includes material on hand from last year, were disposed of for Rs. 10,078.

357. In addition to the material brought out of the forests during the year to supply the market, extensive fellings were made by the grantees in satisfaction of the free grants of wood made to them by the Collectors, their Assistants and Mámlatdárs; no accounts have been given of the number of trees so felled, but the value of the teakwood alone given away gratis during the year amounts to Rs. 10,917-11-3.

358. Besides all the above operations two very large indent were made upon the Forest Department to supply wood for t h city and districts of Ahmedabad, where heavy floods in Septembe 1875 had occasioned much damage to house property.

The indent for the districts received in December 1875 was as follows:—

Teak purlines	...	22′ × 7″ diameter	... 27,000
Teak posts ...	...	8′ × 7″	... 6,000
Teak rafters ...	...	14′ × 2″	... 600,000
Bamboos	...	8′ × 1″	... 2,400,000

and the city of Ahmedabad indent received on the 16th March was for

Teak purlines ...	...	22′ × 7″	... 13,500
Teak posts ...	...	8′ × 7″	... 3,000
Teak rafters ...	...	14′ × 2″	... 300,000
Bamboos	...	8′ × 1″	... 1,200,000

Special funds were provided to meet the cost of felling and carting this wood to railway stations, and the axe was set to work vigorously in the forests of Tanna, Surat, the Dangs, and Panch Máháls nearest to the B. B. and C. I. Railway line. Subsequently the district indent was much reduced, and the city indent was cancelled; but a large quantity of material was sent to the city and district of Ahmedabad. The operations were in full progress at the close of the year under report, and therefore the number of trees felled and the material supplied does not appear in this Report, but will be fully detailed in the Report of 1876-77.

CHAPTER VII.

FINANCIAL RESULTS.

359. The budget estimate of 1875-76 sanctioned by the Government of India exhibited the following anticipations :—

	Rs.
Revenue	3,94,866
Expenditure	3,15,691
Surplus...	79,175

The actuals, however, have been much more favourable, and the financial results of 1875-76 stand thus :—

		Rs.	a.	p.
Revenue		4,49,022	5	7
Expenditure	A. 1,60,705 4 3 B. 1,41,680 8 10	3,02,385	13	1
Surplus...		1,46,636	8	6

It will be perceived that, whereas the actuals of revenue exceed the budget estimate by Rs. 54,156, the actuals of expenditure, on the other hand, are Rs. 13,305, and the surplus is Rs. 67,461 greater than it was expected to be.

360. Revenue and receipts are brought to account under five major heads, which are divided into headings and sub-headings. The following table shows how the actuals contrast with the Government of India's figures in the several classifications of revenue :—

Classification			Government of India's figures.	Actuals, 1875 76.	Actuals more than Estimate.	Actuals less than Estimate.
Major Head.	Head.	Sub-Head.				
			Rs.	Rs.	Rs.	Rs.
I.	1	a	1,17,123	1,06,263		10,860
	.	b	63,868	48,680		15,188
		c		2	2	
	2	a	61,575	1,28,040	66,465	

Classification.			Government of India's figures.	Actuals, 1875-76.	Actuals more than Estimate.	Actuals less than Estimate.
Major Head.	Head.	Sub-Head.				
			Rs.	Rs.	Rs.	Rs.
...	..	b	22,796	49,172	26,376	.....
...	3	...	2,570	10,149	7,579	.....
II.	1	...	57,725	50,761	.....	6,963
...	2	...	35,519	18,285	.....	17,234
III.	1	...	25,200	23,905	.....	1,295
...	2	...	.....	613	613	.....
IV.	1	...	455	386	.	69
..	2	..	.....	294	294	.....
4	3	...	8,035	12,472	4,437	.....
Total			3,94,866	4,49,022	1,05,766	51,609
Amount reduced by Government of India to make up round figures			14,866			
			3,80,000			

361. The revenue estimated by this office when framing the budget was Rs. 3,94,866; but the Government of India, when sanctioning the budget, made a reduction of Rs. 14,866 in lump from the total, which then became Rs. 3,80,000, without distributing the reduction amongst the different heads of revenue. In making the comparison below between actuals and estimates the Conservator, for the above reason, has to take his figures of estimate against the several sub-heads and heads.

362. The proceeds of the timber and firewood removed departmentally and sold by auction was less than had been estimated by Rs. 26,046. The sales of timber standing in the forest to be removed by purchasers at their own expense show considerably more than the estimate, the increase being Rs. 66,465; but this is greatly owing to the receipts on account of bamboos having, under the orders published in Government Resolution No. 1946 of the 1st April 1875, been credited to this heading in the actuals, whereas in the estimate the proceeds of bamboos were entered under II. 2—Other Minor Produce, according to the then existing orders in the matter.

363. Firewood sales standing in the forest exhibit an increase of Rs. 26,376 in actuals upon estimate, and confiscated woods are also Rs. 7,579 over the anticipated collections.

364. II. Minor Produce.—1. Grass and grazing produced a revenue of Rs. 50,761, which is about one-ninth of the total forest revenue of the year, and is Rs. 6,964 less than the estimate, for the

reason that the Commissariat Department received free of charge the grass and grazing of several forest properties under the orders of Government contained in their Resolution No. 1274 of the 2nd March 1875, which had not been published when the Forest budget estimates of 1875-76 were framed.

365. "2. Other Minor Produce" yielded Rs. 17,234 less than the estimate, owing, as already stated, to the fact that the proceeds of bamboos, which under the old practice had been estimated for against this sub-heading, having, in accordance with the Government of India's instructions contained in their letter No. b-326, dated 18th March 1875, in the Department of Agriculture, Revenue, and Commerce, been credited to I. 1 *a* and I. 1 *b*, in the actuals. The collections under this head aggregated Rs. 18,285, of which Rs. 6,254 was on account of kath manufactured in the Dangs and in Mándvi.

366. III. The duty on foreign wood imported into British territory was less than the estimate by Rs. 1,295; but, on the other hand, the duty on other forest produce showed an increase of Rs. 613.

367. IV. Miscellaneous Revenue—

1. Fines and forfeitures. Actuals Rs. 386 against an estimate of Rs. 455.

2. Refunds. Actuals Rs. 294 against an estimate of nil.

3. Other sources show a great increase upon the estimate of Rs. 4,437. The most of this comes from Tanna, consisting of judi paid by inámdars, who have been granted forest rights. The Atgáon inamdár in the Sháhápur Taluka paid Rs. 2,298-5-9 as judi, Aroshi and Dolare paid Rs. 416-10-8, and Warsale Izafatdar in Wára paid Rs. 3,686-1-11. Altogether twelve inámdars paid judi during the year in Tanna.

368. The other items of revenue that constitute this sub-heading are—land rent for cultivated fields situated inside of forest reserves, and rent paid by forest officers and subordinates for Government quarters provided them for residence during the rains.

369. The following table will show the distribution of revenue among the several collectorates and their comparison with

the revenue of the preceding year and with the budget estimate figures—

Collectorates.	Receipts, 1874-75.	Actuals, 1875-76.	Original Estimate, 1875-76.	Actuals, more.	Actuals, less.
	Rs.	Rs.	Rs.	Rs.	Rs.
Tanna . ..	1,11,715	1,24,604	75,548	49,056	
Kolába	66,184	36,342	46,085	.. ...	9,743
Ratnágiri .	3,516	2,307	4,785	.....	2,478
Khandesh . .	46,283	57,387	48,205	9,182	.....
Násik	13,188	17,989	22,663	..	4,674
Ahmednagar	17,787	14,606	13,138	1,468	.....
Poona	57,180	43,185	43,965	.....	780
Satara	39,635	35,672	45,897	.....	10,225
Sholápur	3,576	4,041	2,980	1,061	.....
Surat and Broach	1,14,223	1,00,944	75,485	25,459	.....
Kaira ...	3,793	11,830	16,115	... ..	4,285
Ahmedabad	190	115	.....	115	...
	4,77,270	4,49,022	3,94,866	86,341	32,185

It will thus be seen that the collectorates that show an increase on the surplus that was expected of them are Tanna, Khandesh, Ahmednagar, Sholápur, Surat, and Ahmedabad.

370. Tanna has given a revenue of Rs. 49,056 more than the estimate. The increase is entirely in revenue from wood. Departmental sales of timber are nearly Rs. 10,000 more than the estimate; but departmental transactions in firewood are, on the other hand, Rs. 2,300 less than was anticipated. Timber sales standing in the forests have produced Rs. 13,600 more, as they contain a large item on account of bamboos, but firewood sales Rs. 7,600 less. Grass and grazing show an advance of Rs. 647 on the estimate, and other minor produce a decrease of Rs. 8,200, collections on account of bamboos having been taken away from this heading. The miscellaneous revenue of Tanna has given Rs. 2,600 more than was expected from increased payments by inamdars.

371. *Khandesh.*—The increase over estimate is Rs. 9,182. The timber sales at depôts were larger by Rs. 1,100 than were anti-

cipated, but there were no departmental transactions in firewood. The removal of timber and bamboos by Bheels on permit was brisker than was expected, and realized Rs. 14,722 ; firewood also removed on permits brought Rs. 4,800 more than the estimate, which was Rs. 3,000. Grass revenue was five times greater than the estimate, and aggregated Rs. 1,969 ; but " other minor produce," instead of producing Rs. 6,200 as was expected, only collected Rs. 672 : this was owing to the proceeds of bamboos having been transferred to another head. The duty on produce of foreign forests was Rs. 900 less than the estimate, owing to a slight decrease in the quantity of wood imported.

372. Ahmednagar exhibits an increase of Rs. 1,468 upon the estimated revenue, Rs. 1,100 of which came from grass and grazing, Rs. 94 from minor produce, and the remainder from increased prices for timber realized at auction sales.

373. Sholápur has also an increase of Rs. 1,061 on its estimated revenue, Rs. 436 of which is from grass, Rs. 115 from other minor produce, and the balance from wood.

374. Surat and the Dangs have given Rs. 25,459 more than was required of them; Rs. 360 from grass, and all the remainder from wood. The departmental sales of timber, however, were not so extensive as anticipated ; the estimate on this account was Rs. 13,900, and the actuals Rs. 4,449. In departmental and standing sales of firewood the actuals and estimate closely correspond, but the standing sales of timber show a large increase on the estimate.

375. The forest revenue of Ahmedabad is Rs. 115 by the sales of grass on the B. B. and C. I. Railway strip plantations.

376. The collectorates that show a falling off in actual revenue upon the estimate are Kolába, Ratnágiri, Násik, Poona, Satara, and the Panch Máháls (Kaira).

377. Kolába has returned Rs. 9,743 less than was required of it ; the decrease has occurred in departmental sales of timber and firewood ; while, on the other hand, the receipts from standing sales of timber are Rs. 3,453 more than was estimated. The revenue from other minor produce has increased.

378. *Ratnagiri.*—There were no departmental sales of firewood, and the timber auctions brought Rs. 830 less than had been estimated ; hence the decrease in the actuals on the budget figures.

379. Nasik has given Rs. 4,674 of revenue less than was calculated ; Rs. 2,800 occurring in the auction results of teak

timber, and the balance in firewood. Standing sales, however, were more productive than the estimate.

380. Poona only shows a slight difference of Rs. 780. The grass receipts, however, are Rs. 8,600 less than the budget figures, owing to the alienation of the grass receipts of several forest properties to the Commissariat Department—a proceeding that had not been foreseen when the budget was framed. However, the revenue from wood has gone a long way to make up this deficiency, the prices obtained this season having been better than expected.

381. The decline in Satara is in timber and firewood revenue, and also Rs. 1,700 in grass receipts, making in all a falling off amounting to Rs. 10,225. The teak rafter auctions produced Rs. 3,400 less than the estimate, and the firewood operations Rs. 5,800 under the expectations; this was in a measure owing to a stock of firewood remaining over unsold at the close of the year.

382. The Panch Máháls revenue amounted to Rs. 11,830 against an estimate of Rs. 16,115, the difference being found in the timber sales conducted departmentally.

383. It will be noticed that the gross revenue of the year under report is less than that of its predecessor, but this is due to a quantity of wood from Tanna and the Panch Máhál forests having been sent to the Ahmedabad districts in order to provide material for the re-building and repair of the houses that were destroyed by the flood of the Sábarmati in September 1875; no credit was received during the year for this wood. Had it not been sent to Ahmedabad, but sold by auction, its proceeds would have raised the revenue of the year to that of 1874-75. The figures of the two years compare as under :—

	Revenue.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1874-75	4,77,270	3,29,398	1,47,872
1875-76	4,49,022	3,02,386	1,46,636
1875-76. More ...	.....	.....	.....
than 1874-75. Less ...	28,248	27,012	1,236

384. The following table shows how the actual working expenditure of the year corresponds with that of the previous year and with the Government of India's sanction in the several collectorates :—

Collectorates.	Disbursements 1874-75.	Actuals 1875-76.	Government of India's Sanction 1875-76.	Actual more than sanction.	Actuals less than sanction.
	Rs.	Rs.	Rs.	Rs.	Rs.
Tanna	68,469	38,961	49,685	.....	10,724
Kolába	28,069	40,353	26,920	13,433	.....
Ratnágiri	707	4,213	3,790	423	.....
Khandesh	10,043	14,481	13,029	1,452	.....
Násik	6,614	7,827	17,352	.....	9,525
Ahmednagar	6,681	2,319	4,187	.....	1,868
Poona	13,501	12,560	12,264	296	.....
Satara	1,563	4,997	9,998	.....	5,001
Sholapur	1,668	1,124	639	485	.....
Surat and Broach	40,627	27,198	23,396	3,802	.....
Kaira (Panch Máháls)	7,987	6,672	6,193	479	.....
Ahmedabad	.....	.....	.....	.....	.....
	1,85,929	1,60,705	1,67,453	20,370	27,118

385. It will be perceived that there is a saving of Rs. 6,748 in actuals upon the Government of India's sanction for the division, notwithstanding that the working expenditure of 7 districts was in excess of their sanction.

386. In Kolába the excess of Rs. 13,433 is to be found entirely in X. " Law Charges," which shows a large debit of Rs. 21,109, principally caused by the payment made on account of the Bhendi Bág at Sat Tar, near Alibág.

387. In Ratnágiri " Law Charges," Rs. 3,174, likewise cause the actuals to be in excess of the sanction, while in Khandesh the increased cost of " surveys " and of " collection of duty on foreign produce " raise the actuals to Rs. 1,452 above the sanction.

388. The expenditure on plantations in Poona, Sholápur, and Kaira accounts for the small excess on sanction, while in Surat the large excess of Rs. 3,802 is occasioned by the heavy cost of the revenue survey establishment employed in the Dangs.

389. On the other hand there are savings in Tanna, Násik, Ahmednagar, and Satara, which more than cover the above excesses.

390. A. I.—" Cost of Timber Operations."—The Government of India's sanction amounted to Rs. 84,380, while the actuals come to Rs. 56,283-9-11. The saving is to be found chiefly in the cost of timber and firewood brought to depôts for sale, the cost of timber and firewood sold standing to purchasers being only Rs. 700 less than provided.

391. A. II.—" Cost of Minor Produce" exhibits a very small saving of Rs. 400.

392. A. III.—" Cost of Forest Organization."—The sanction is Rs. 19,891 and the actuals Rs. 19,185, or Rs. 706 saved. There is, however, a more considerable difference in the sub-heads: for instance, the sanction for "boundary-marks" was Rs. 10,231 and the expenditure Rs. 2,042; while "surveys," for which only Rs. 9,600 had been provided, consumed Rs. 17,142-12-1, owing to the cost of the Dang survey—an unexpected charge which was not foreseen when the budget was framed, to demarcation operations in Satara and Kaira that were not anticipated, and to increased cost in Násik and Khandesh, where demarcation was carried on vigorously. Tanna and Kolába, on the other hand, show savings.

393. The expenditure estimated upon "boundary marks" was not incurred, for the reason that sanction was not given to the reserves selected last season until too late for much progress to be made in defining their limits on the ground.

394. A. IV.—" Cost of the Treatment and Creation of Forests."—The sanction of the Government of India was only Rs. 10,000, while actual expenditure amounted to Rs. 15,447. The reason for this has already been explained in Chapter V.

395. A. V.—" Rent of Leased Forests" exhibits a saving of nearly Rs. 5,000 on the sanction, owing to much smaller payments having been made to khotes and ruckwaldars in Tanna, Kolába, and Ahmednagar than were anticipated.

396. A. VI.—The actuals exceed by Rs. 869 the amount provided for the cost of the establishments entertained to collect "duty on produce of foreign forests" in Khandesh.

397. A VII.—" Works of utility for the development of forests."—The Government of India's sanction amounted to Rs. 17,180 and the actuals to Rs. 9,566 only. The proposed road in Násik up the Nanasi Ghát was not commenced, owing to a difference of opinion about the line to be taken by a road from the Point States up to the Dindori Taluka of Násik. The Collector, Mr. Erskine, was in favour of the Nanasi Ghát, and proposed that the cost of the road should be divided between the Local Funds and the Forest Department; but, on his departure to Europe on furlough, the Acting Collector, Mr. Elliott, was in favour of another line of country, and, therefore, nothing was done. In Poona, Rs. 736, instead of Rs. 1,230 as provided, were expended upon the Lanauli and Borkus road; while, on the other hand, the repairs to the Dang forest road swallowed up Rs. 1,157, for which there was

no provision. Under " Buildings and Offices " Rs. 3,450 had been provided, and only Rs. 814 were expended, while compensation for land, instead of costing Rs. 10,000 only, required the payment of Rs. 6,377-11-3.

398. A. VIII.—" Cost of Departmental Cattle. "—Rs. 48 were sanctioned and Rs. 30 spent. In the same way with

399. A. IX.—" Cost of Departmental Plant and Tools."—Rs. 1,189 provided and only Rs. 460-12-0 spent.

400. A. X.—Miscellaneous.

	Rs.
Sanction	4,384
Actuals	34,221
Excess	29,837

This is attributable almost entirely to " Law Charges," which cost Rs. 29,694-12-1 and were unforeseen. Kolába, with Rs. 21,109, bears the main burden of this item. " Refunds " come to Rs. 3,956, or Rs. 2,356 more than the sanction.

401. " B.—*Establishments.*"

The actuals under this main head compare with the sanction thus :—

	Government of India's sanction.	Actuals 1875-76.
I.—" Salaries."	Rs.	Rs.
1. Conservator	12,000	12,000
2. Executive Officers	49,000	41,505
3. Protective Establishment	43,368	41,910
4. Office Establishment	11,256	11,336
II.—" Travelling Allowances."		
1. Conservators	2,400	2,960
2. Executive Officers	18,720	16,262
3. Protective Establishment	7,780	5,138
4. Office Establishment	4,118	3,966
III.—" Contingencies."		
1. Stationery	1,360	2,059
2. Carriage of Records	269	1,197
4. Sundries	1,360	1,739
5. Official Postage	1,614	1,609

The totals of "B.—Establishments" compare as follows :—

	Rs.	a.	p.
Government of India's sanction ...	1,48,238	0	0
Actuals 1875-76	1,41,680	8	11
Savings	6,557	7	1

402. The financial results of the year may be considered very satisfactory; for, while the expenditure, though burdened with very large extraordinary charges, has been less than the sanction both in conservancy and working and establishments, the gross and net revenues have exceeded the expectations originally formed, and works of improvement have been pushed on. The axe has been directed with a view to improve the forests, and bring the interest of their value, in the shape of mature and superfluous wood, into the market. This has not, however, in actual practice been the case every where, for the reason that insufficient protective establishments do not allow supervision to be as effective as it should be, and the orders of the Conservator regarding the operation of the axe have been scamped in more than one direction.

403. The value of stock on hand at the commencement of the year was estimated at Rs. 49,079; the material received during the year was valued at Rs. 3,05,013, showing that forest produce estimated to be worth Rs. 3,54,092 was offered for public sale; but out of this only Rs. 2,95,547 worth were disposed of, leaving a balance of stock on hand at the close of the year valued at Rs. 55,877, or Rs. 6,798 more than the year commenced with.

CHAPTER VIII.

GENERAL REMARKS.

404. The Conservator must again acknowledge with thanks the cordial assistance and support he has received from the Revenue Commissioners and Collectors in his Division, who take much interest in forest matters, to which is attributable the steady progress which, the undersigned believes, is making in the treatment and protection of the forests of his division.

405. At the end of September 1875 the Conservator and the following forest officers of the Northern Division—Mr. Wallinger, Deputy Conservator, Poona; Mr. Gibson, Assistant Conservator, Tanna; Mr. Wroughton, Assistant Conservator, Násik; Mr. Dunbar, Assistant Conservator, Satara; with Mr.

Horsley, C.S., demarcating officer of Khandesh—proceeded to Simla to attend a conference of forest officers from all parts of India, to discuss questions of forest administration, which proved both interesting and instructive. From Simla the Conservator and Mr. Horsley returned direct—the former to asssist at a departmental examination of forest officers held at Poona, and the latter to resume his demarcation work in Khandesh. The other officers proceeded to Lahore to inspect the Changa Manga plantation, which was formed with the view of supplying the railway company with firewood. It was commenced in 1867, is situated near the railway station of Changa Manga, about 45 miles south-west of the city of Lahore in the Panjab, and is irrigated by the canal, that traverses the district, at a cost of Rs. 30,000, or Rs. 3 per acre, yearly. The plantation measures 10,000 acres, its entire area being covered. The chief tree contained in it is the sheshum; but there is a good sprinkling of mulberry, tún, and bore trees; their average height is from 10 to 25 feet. The cost of this plantation has been very great: for instance, the original price of the land was Rs. 60,000; then Rs. 30,000 were expended in trying to make babul grow upon it. The attempt, however, failed; although there are some fine babul trees growing on similar land surrounding the plantation.

406. It was intended that the forest officers should proceed from Changa Manga to Multan, and then down the Indus to Kurrachee, and so by sea to Bombay; but, owing to the Indus being unusually low and a protracted journey anticipated on that account, the Conservator telegraphed to them to return by rail direct.

407. Specimens of all woods produced in the forests of the Northern Division were prepared for His Royal Highness the Prince of Wales, and sent to the Curator, Central Museum, under the orders contained in Government Resolution No. 2598, dated 28th August 1875.

408. The thanks of the Conservator are due to several forest officers of his division. Captain MacRae, Deputy Conservator, has been in charge of the Guzerat Circle forests throughout the year, and has managed them with his usual energy and ability.

409. Mr. Wallinger, Deputy Conservator, 3rd grade, in Poona, has administered the forests of his district most successfully. The Collector of Poona remarks upon his administration report as follows:—

1. In forwarding the annual forest report of the Poona Collectorate for the past year I have but few remarks to offer.

2. Mr. Wallinger has been in charge during the year, and, on the whole, I consider his administration most successful. Although occasionally we differ on minor points of detail, I willingly bear testimony to the careful and painstaking manner in which he discharges his duties.

3. I have always been opposed to the use of prickly-pear as a fencing material. I observe, from one of the statements attached, that a large quantity has been planted during the past season. The orders of Government sanctioning the use of prickly-pear as a fencing material have recently been cancelled, and I trust by careful trimming every effort will be made to prevent the hedges that have been planted from spreading, and thus becoming a nuisance to the occupants of the adjoining lands.

4. With the exception of the Purandhar Taluka, the papers regarding which are still under consideration, the demarcation of the forest lands in this collectorate may be said to be completed. It is true that the demarcation already effected in Haveli, Sirur, Junnar, and Máwal has to be revised; but the revision will not entail any great labour, and will probably be completed during the next working season.

5. With regard to the forest prosecutions, the Conservator and the Revenue Commissioner are already in possession of my views. I have no wish to cripple the operations of the Forest Department; but I think that criminal proceedings in the case of small depredations should only be had recourse to as a last resource. Large tracts of land have lately been made over to the department on the ghâts, and in that locality I should advocate the greatest leniency in dealing with forest officers.

6. The want of good roads along the valleys leading to the ghâts in the Khed and Junnar talukas is very much felt. Until money can be found to open out that part of the country, the forest property on the ghâts cannot be expected to yield a fair return. This question is receiving the attention of the District Local Funds Committee; but the demands for assistance, more especially in the matter of water-supply, are so pressing that I fear it will be many years before much can be done towards improving communications.

410. Mr. Gibson, Assistant Conservator, 2nd grade, has had charge of the very difficult and extensive district of Tanna, and

has administered the duties thereof with great credit to himself. He has been active, zealous, and hard-working. Mr. Mainwaring, Assistant Conservator, has acted as his assistant in Tanna during the year, and has worked well and hard. This officer passed the prescribed examination in the vernacular (Marathi) on the 11th October 1875, and was promoted to the 2nd from the 3rd grade, dating from that day.

411. Mr. Wroughton, Assistant Conservator, 2nd grade, has continued in charge of the Násik and Peint forests, and has done excellent work in selecting tracts for forest reservation, although the arrangements made in connection with these lands are not so satisfactory as could be wished.

412. Mr. Hewett, Assistant Conservator, 2nd grade, has been district forest officer of Kolába throughout the year, although he was absent on privilege leave from the 1st April 1875 to the end of June. The health of this officer has been very indifferent, and his administration of the Kolába forests very unsatisfactory; but as this subject has formed the matter of a separate report to Government, it is not necessary to remark further upon it here.

413. Mr. Dunbar, Assistant Conservator of Forest, 2nd grade, received charge of the Satara forests in May 1875 from the Conservator, and continued in charge of them till December, when sickness compelled him to take leave to Bombay and finally to Europe. Mr. Shewan, C.S., then succeeded him, and administered the Satara forests with great care and interest during the remainder of the year. Special thanks are due to this gentleman for the active way in which he has looked after the work. Mr. Moore, the Collector of Satara, has given every consideration and assistance in his power to this department towards the furtherance of its duties; and the Conservator, while feeling greatly indebted him, regrets that, owing to the frequent changes of officers in Satara and other causes beyond his control, the progress made in the improvement and treatment of the existing forests of Satara has not yet been as satisfactory as elsewhere. The work of "reboisement" in connection with the denuded hills in the eastern gháts has not yet received the attention necessary to this important branch of forest management in Satara. But the Conservator hopes with the Collector that the recent orders passed by Government on the reports about kumri cultivation in that district will, in a great measure, put a stop to the denudation of forests, and that when first-class reserves have been defined something will be done to improve the forest property on the gháts. Regarding the eastern hills of Satara, Mr. Moore, the Collector, remarks as follows :—

"The bare and rocky hills in the eastern districts have never, I imagine, been clothed with anything beyond the armed milkbush; but I do not despair of clothing them with vegetation, if one make an earnest attempt in that direction. Any scrub growth prevents the soil from being washed away, arrests the detritus, and itself forms a soil for holding the seeds of forest trees. But we can do nothing without an establishment, and it is with great pleasure that I hear of the proposals which the Conservator has made for strengthening our hands in this direction. I most sincerely trust that Government will sanction the proposals, and one may then hope to hear of something being done in the way of planting and creating forests where none exist at present."

414. Mr. T. B. Fry, Assistant Conservator, has been in charge of the Panch Máhál forests during the year since May 1875, and has proved himself to be an able, intelligent, and hard-working officer. Mr. Richey, Extra First Assistant Collector in charge of the Panch Máháls, remarks as under upon the past year's working:—

"It is satisfactory to notice that, had it not been for the demand on the Forest Department on account of the Ahmedabad Relief Fund, the receipts of the year would have covered the expenditure. The revenue to be looked for from the Panch Máhál forests can never be large, owing to the character of the material produced, and for some time to come it will probably leave but little margin over expenditure, but the work of the department is not to be underrated on this account. The rafters that form the staple of our forest produce are a necessity in house-building to all classes, and, in maintaining the supply of these, Government is working as much for the direct benefit of the masses as in raising a revenue by the sale of more valuable timber."

415. Mr. Narayan Anant Okidwé, Sub-Assistant Conservator, 2nd grade, has merited approbation by his active, intelligent management of the Ahmednagar forests. Mr. Boswell, the Collector, states Mr. Narayan Anant "takes a keen interest in his work."

416. Mr. Narayan Ballal Oké, Sub-Assistant Conservator, 1st grade, has continued in charge of the Khandesh forests, with the exception of a short absence at Kolába, throughout the year. This officer's health has not been very good. The Acting Collector of Khandesh remarks upon Mr. Narayan Oké's adminis. tration report thus:—

"The absence of rules, and more especially a want of system in cutting the forests so as to utilize the labour of the

Bheels, prevents satisfactory results as usual. A large portion of the revenue is acquired from a very questionable source. The Collector hopes that the present monsoon will witness the settlement of some effective method of forest management, as the complaints of the wild tribes are daily more numerous."

At present the Bheels, the wild tribes alluded to, have the run of the Sátpura forests, with the exception of a few reserved species of trees, and are required to pay a seigniorage on the wood they fell and remove for sale in the market. They complain that they cannot get a fair price from dealers, &c., for their wood, and that the sowkars of the plains and others, who have no claims upon the forests, send their carts and servants into the Sátpuras to cut and remove wood, and thus spoil their market. As far as departmental cuttings are concerned, the Bheels are always employed when any such are attempted; but as long as the permit system of working is allowed to continue, it would be a waste of money to attempt any intelligent working of the Sátpura forests that would tend to their improvement. A scheme is now before Government for abolishing the permit system, and registering the wild tribes who have claims on the forests, allowing them only the entry into the forests and for purchasing at fixed rates the wood they bring out to depôts at the foot of the Sátpuras: by this system it will be possible to exclude outsiders from the forests, to provide labour for the Bheels, and enlist them on the side of forest conservancy, and, finally, to work the Sátpura forests to the increase of their productive powers.

417. It has already been stated in the body of this Report that, owing to a heavy flood in the Sábarmati River in September 1875, many houses in the city of Ahmedabad were destroyed and injured, and in the villages in the Sábarmati Valley the damage done to house property was very great, and that indents were made upon this department to supply a very large quantity of teakwood and bamboos. The axe had to be worked very vigorously in the Tanna, Surat, Dangs, and Panch Máhál forests, and the operations had to be actively supervised by Captain MacRae in Surat and the Dangs, Mr. Gibson in Tanna, and Mr. Fry in the Panch Máháls. Much praise is due to these officers for their zealous, untiring energy and perfect arrangements, though the first indent was only received in January. Before the rains commenced the following enormous quantity of material had been delivered at railway stations in the Ahmedabad Collectorate :—

Teak purlines ...	...	22′ × 7″ ...	28,164
„ posts ...	...	8′ × 7″ ...	6,021

Teak rafters	... 14′ × 2″ to 4″	... 372,186
Bamboos ...	... 8′ × 1″ to 2″	... 1,888,577

The cost amounted to Rs. 3,53,922-14-6.

418. Mr. Govind Ramchandra Mahajan, head forest inspector, is deserving of praise for his good management of the Sholápur babul preserves and plantations.

419. Several Assistant Collectors have been employed upon forest demarcation in different districts during the year to whom special thanks are due, viz., Mr. Horsley, C.S., in Khandesh, and Mr. Sinclair, C.S., in Tanna, who have been working alone; Mr. Charles, C.S., in Násik, who has been working with the District Forest Officer Mr. Wroughton; and Messrs. Johns, C.S., and Macpherson, C.S., in Poona, who have been co-operating with Mr. Wallinger.

420. On the 1st April 1875 the Conservator of Forests was on the Satara Ghát Matha engaged with Mr. Winter, C.S., in demarcating forests on the ghâts and inquiring into and settling the limits of kumri cultivation; at the same time the Conservator was in charge of the Satara District Forest Office.

421. The demarcation of the ghát forests and the kumri settlement lasted up to the first week in May 1875, when the Conservator, by desire of the Collector of Satara and the Revenue Commissioner, S.D., met Mr. Vidal, the First Assistant Collector of Satara, and with this officer made an inspection of the five-mile forest of Mahableshwar, marching the boundaries of the forests and of the cultivation fields situated inside of them. This work lasted up to the rains, and a special report was submitted to Government in the matter.

422. The five-mile forest of Mahableshwar extends through the lands of 78 villages, some of which are in the Wai Taluka of Satara, others in Jauli, and a few below ghâts in the Mahád Taluka of Kolába. The result of the inspection was a proposal to place these important forests under the charge of a responsible department to save them from being cleared off the face of the land; the condition of some of the hills is deplorable, and nothing is being done for their improvement.

Although encroachments of cultivation boundaries upon the forest land did not come under frequent notice, still the work of tree denudation is in steady progress, and, unless some preventive measures are adopted, the result will be seriously felt upon the station as a hot-weather sanitarium. When the five-mile forest was first established, a solitary Brahmin kárkun on Rs. 6 was placed in charge; this man was naturally lost in the wilds, and had

to be replaced by 4 peons on Rs. 7 and 8, who have no proper, *i.e.* professional, supervision kept over them, and are entrusted with powers of selling growth on permits. No funds are spent in improving the forests, in collecting or importing seeds, and no seeds are sown; while the efforts of nature at reproduction, instead of being supplemented and carefully nursed, are wasted and thwarted. The hill-sides are set on fire to, for the purpose of improving the growth of grass, and herds of cattle are driven all over the reserves; while the ráb-cutter removes every seedling that escapes the fire and hoofs of cattle. Of the existing trees in the forests large numbers are annually cut in the rains and converted into dead wood to be sold during the season; while green wood is daily brought to the bazaars, notwithstanding the protective efforts of the four peons.

423. On the 14th June 1875 the Conservator went into Poona for the rains, and on the 27th September he started for Simla to attend the Forest Conference, returning on the 21st October, where he assisted at the departmental examination, and on the 27th proceeded to Dápoli, in the Ratnágiri Collectorate, where he was employed inspecting the Bandh reserves and plantations up to the 7th November, when he proceeded to Bombay to attend the reception of His Royal Highness the Prince of Wales.

424. On the 22nd November the Conservator made another start from Poona down the Bhima Valley with the district forest officer, Poona, and inspected all the babul reserves up to the Ahmednagar frontier, when he was joined by the Ahmednagar district forest officer, with whom he visited all the Ahmednagar reserves in the plains.

The Collector of Ahmednagar having expressed his opinion that the axe was worked too freely in the Ahmednagar Collectorate, the Conservator made it a point of visiting as many of the reserves as he could in order to see if such were the case. He found that, on the contrary, the axe had not been worked sufficiently, and reported this fact to the Collector, and also mentioned it in a report to Government. The Conservator pointed out hundreds of the trees in the babul preserves that were in eminent want of removal, being too thickly clustered, past maturity, unsound or impeding the development of others. On the 20th December his camp arrived at Manmád in Násik, and from there was sent to Mándwad in Nandgaon, while he went to Dápoli for the Christmas holidays.

425. On the 3rd January 1876 the Conservator proceeded to Alibág in Kolába, and inspected the firewood depôt there, and visited the Sagargarh forests in order to inspect the departmental

felling of teak rafters in progress, and gave instructions regarding the work; and on the 6th idem he went from Alibag to Mándwad, in Násik, where he joined the camp of Messrs. Wroughton and Charles, forest demarcating officers. After travelling about with them a week he proceeded to Ganeshpur, in the Chálisgaon Taluka of Khandesh, and made an inspection of the Patna reserve and of the plantations formed therein.

426. From Chálisgaon the Conservator proceeded to Dhulia, visiting by the way the second-class reserve at Londa; while at Dhulia the timber depôt was examined, and two excursions were made to Laling for the inspection of the reserves and plantation.

427. Leaving Dhulia on the 5th February, the 7th saw the Conservator's camp at Chopra, where he had the pleasure of meeting the Revenue Commissioner, N. D., and from thence marched into the Sátpuras and joined Mr. Horsley, the demarcating officer of Khandesh, with whom the Conservator stayed until the end of the month.

The main camp was pitched on the banks of the Annar, near the Bheel hamlet of Dhowli, while Mr. Horsley and the Conservator made excursions in different directions over the forests; the boundaries of the first-class Chopra reserve were visited, as also the frontier boundary.

428. Leaving the Sátpuras on the 1st March the Conservator marched to the Nizámpur Petha, where the Borai River reserve was visited and reported upon; thence he continued his way to Nizámpur, inspecting *en route* a part of the Pán River reserve, and arrived at the top of the Kondái Bári on the 10th March. The naka was inspected, the Kondái Bári descended, and camp pitched at Esarwádi, from whence the Nesu River reserve and the kath manufactories were visited.

429. From Esarwadi three long marches, of from 20 to 24 miles, took the camp to Tarsád, in the Mándvi Taluka of Surat. While at Songarh *en route* to Tarsád, in the Baroda territory, the Conservator received much attention from the Parsi fouzdár of the place. The period between the 16th to 27th March was spent in company with the district forest officer of Surat, inspecting the Mándvi reserves and the material under the axe for the supply of the city of Ahmedabad and the district for flood reliefs.

430. Leaving Tarkesar, in Mándvi, on the 27th, the Conservator reached Anklesar, in Broach, on the 30th March, where he visited the wood-dealers' yards with a view to ascertain whether he could purchase any small rafters and bamboos for the city of Ahmedabad. It was his intention to continue northward to the

Panch Máháls from Ankleswar; but while here nearly every member of his establishment was stricken down with jungle fever, the seeds of which they had evidently acquired in the unhealthy Mándvi and Tapti Valley forests. So many of the people were prostrated that he had to remove his camp by rail to Bulsar, where there is a forest bungalow and a civil dispensary; and while his establishment were recovering, the Conservator looked after the supply of wood and bamboos being made to Ahmedabad from the Tanna, Surat, and Panch Máhál forests.

431. A committee was held under the orders of Government contained in their Resolution No. 4748, dated 20th August 1875, composed of—

President.

Colonel Taverner, Superintendent Revenue Survey, Tanna, Poona, and Násik.

Members.

Lieutenant Gibbs, R.E., G. I. T. Survey;
Mr. Fforde, Assistant Superintendent Bombay Revenue Survey;

for the departmental examination, according to the prescribed tests, of the following forest officers:—

Mr. F. R. Desái, Assistant Conservator, Sind;
„ G. L. Gibson, Assistant Conservator, N. D., Tanna;
„ W. G. Betham, Assistant Conservator, S. D., Dharwar.

The Conservator assisted the committee, and the result of the examination was that all the officers passed, Mr. Betham passing with credit.

A. T. SHUTTLEWORTH,
Conservator of Forests, N. D.

Poona, 11th October 1876.

No. 5673 of 1876.

To

The CHIEF SECRETARY to GOVERNMENT,

Revenue Department, Bombay.

Dhulia, 16*th November* 1876.

Sir,

I have the honour to forward the Administration Report of the Conservator of Forests for the year 1875-76.

2. I have already recorded my opinion on the subject of forest demarcation, forest rights of the Bheels and wild tribes, forest legislation, free grants of timber and establishment, and I trust, therefore, I may be excused in the present press of work for famine relief if I hand on this report without further remark.

3. I have the misfortune to differ from the Conservator in many points, but this is not a fit opportunity for controversy on disputed points.

4. I have on many occasions expressed my admiration of Mr. Shuttleworth's zealous devotion to his very arduous duties; the present report is another record of his industry and capacity for work. I trust that the increased establishment he has so long applied for, may be sanctioned, and that he may be thus enabled to do justice to his very important department. Much of his labour and that of his deputies is wasted for want of efficient establishment.

I have the honour to be,

Sir,

Your most obedient Servant,

L. R. ASHBURNER,

Revenue Commissioner, N.D.

No. 3984 of 1876.

Revenue Department.

To

The CHIEF SECRETARY to GOVERNMENT.

Poona, 23*rd November* 1876.

Sir,

In forwarding the Administration Report of the Conservator of Forests for the year 1875-76 I regret that, owing to pressure of

work, I am unable to review the voluminous remarks of Mr. Shuttleworth, many of which relate to matters with which I am not personally acquainted.

2. I may, perhaps, be permitted to observe that the report seems capable of considerable abridgment, and that, in future years, it would perhaps be advisable if the Conservator were directed to confine his remarks, as much as possible, to matters of general importance, and to omit minor questions of detail.

I have the honour to be,

Sir,

Your most obedient Servant,

G. NORMAN,

In charge Office of Revenue Commissioner, S. D.

FOREST ADMINISTRATION REPORT

OF THE

SOUTHERN DIVISION, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1875-76.

INTRODUCTION.

There have been no changes during the year in the system of forest administration hitherto observed in this division and recorded in the report for 1873-74, neither have the permanent establishments of the department been in any way altered.

2. It should, however, be remarked that one and all of the district forest officers complain most bitterly of the inadequacy of their protective establishments, and that the selection and classification of the reserves being still in hand and incomplete has alone prevented proposals being submitted for an increase.

3. In Belgaum, Dharwar, and Kaládgi, where, it will be shown in the next section, the reserve selections have been almost completed, there is no reason why a reorganization should not be considered ; therefore it is intended to submit proposals at an early date for an increase to the establishments there, in view to secure better protection and management.

4. In Kanara, also, the classification and selection of reserves have progressed so rapidly under Mr. E. J. Ebden, C.S, the officer specially and exclusively employed on this duty, as to justify a hope that by the end of the next working season at least 600 square miles of forest reserves—properly mapped and classified into "Special, Ordinary, and District" blocks—will have been completed. For the better protection of this area an increase to establishment will also have to be asked for.

5. In "Forest Legislation" nothing has been done during the year; we have, however, apparently approached nearer the

consideration of a Forest Act, or special legislation of some kind, than we were this time last year, for report and rules on a Government of India Forest Act have been called for, and there is a Timber Act, and certain sections having special reference to forests in the Bombay Revenue Officers and Land Revenue Code Bill in contemplation.

6. Somehow, and not before the time has arrived for it there is a growing conviction amongst many officers of experience that a Forest Act, or special legislation of some kind, has become necessary so as to better protect the Government interests in forests, and to define the "status" of the department.

7. There have been no changes among the controlling officers during the year.

PART I.—SPECIAL.

HEAD I.—STATE FORESTS.

SECTION I.—AREA, BOUNDARIES, AND DESCRIPTIVE ACCOUNT

8. Very good progress has been made during the year in the selection and part classification of forest reserves.

9. The following statement shows the area of the previous reserve selections and those of 1875-76, but including April and May 1876, which it is found difficult to separate from those done prior to the 31st March last:—

Districts.	Area up to the end of 1874-75, and including the 15th June 1876.	Area added during 1875-76, and including up to the 31st May 1876	Total Area
	Square Miles		
Kanara	207·37	138·59	345·96
Belgaum	370·37	97	467·37
Dharwar	171·24	..	171·24
Kaládgi	.. ...	151·04	151·04
Total area	748 98	386 63	1,135·61

Excepting the Kaládgi reserves and 94·30 square miles of the Kanara selections the whole have been mapped.

10. The classified reserves of the above-shown area are :—

Districts.	Special and Ordinary.	District.	Total.
	Square Miles.		
Kanara	231·94	114·02	345·96
Deshnur (Belgaum)	15·50	6·59	22·09
Kaládgi	79·07	71·96	151·03
Total...	326·51	192·57	519·08

11. The work of selection was done in Kaládgi by the Conservator of Forests; in Kanara by Mr. E. J. Ebden, C.S. (specially employed); and in Belgaum by Mr. J. L. Laird, Assistant Conservator of Forests.

12. The whole, even to the Dharwar and Deshnur reserves before approved of, but now being properly re-mapped and classified by the forest officers, are subject to the sanction of Government.

13. A very brief sketch of the general character and situation of the reserve areas shown in para. 9 would appear desirable here; also the object of their classification, the year when selection was first taken in hand, and such other particulars of interest as attach to them.

14. For the sake of uniformity and more ready comprehension of purpose it is proposed to divide the whole into groups or blocks of—(*a*) Special, (*b*) Ordinary, and (*c*) District reserves—

(*a*) *Special.*—To consist of compact blocks of existing forests free of rights and where the soil and station are good; the object being strict conservancy and improvement within, so as to procure the best crop the soil can afford to yield, whether in (1) large timber trees or high forest, (2) poles or small wood for inferior buildings, and (3) firewood.

(*b*) *Ordinary.*—To also consist of compact blocks free of rights where the soil and station are favourable, and the timber and firewood sufficient to meet all ordinary wants until such time as the special blocks are fully stocked. Fires to be kept down, and useful measures of conservancy and improvement to be observed. These blocks

to be open, however, for grazing if required, but in time, when exhausted, to become "special," and treated as such.

(c) *District.*—To comprise the more scattered tree or scrub-bearing tracts, and to be open under certain conditions to the local inhabitants for grazing their cattle in, and collecting small wood for building purposes and for fuel.

15. Thus the forest reserves, instead of being known under the rather vague denomination of 1st, 2nd, and 3rd class reserves, will bear the more appropriate designation of "Special," "Ordinary" and "District," the whole to be managed by the Forest Department as heretofore in consultation with the Collectors, excepting the special reserves, which, though jointly decided upon, must be ever after under the sole management of the forest officers, until the object of them is attained.

16. With these remarks a brief, though necessary, description of the reserve selections will be proceeded with:—

KANARA DISTRICT.

17. The first inspection—in view to select, map, and demarcate reserves—was begun in the Haliyál, or eastern portion of the Supa Taluka, in January 1875, by Mr. E. J. Ebden, C.S., specially employed for the purpose under Government Resolution No. 409, dated 23rd January 1875, and after careful inquiry and inspection the following area was determined on and mapped for reserves:—

I.—Haliya'l Reserves.

(1.) *Area*—

Special and ordinary...	1,17,795	acres.
District	43,240	„
Total...	1,61,035	acres, or 251·61 square miles.

(2.) *Boundaries.*—On the north by the Belgaum and Dharwar districts, on the east by the Dharwar Districts, on the west by the Supa Petha, and on the south by the Yellápur Taluka.

(3.) *Topographical Description*—The reserves are, with one or two exceptions, made up of large blocks running into one another, and alternately flat and undulating.

(4.) *Soil.*—The principal geological formation is granite and gneiss, with veins of quartz and the later formations of sand-stone and iron-stone; the soil being mostly black and light-coloured, with

a substratum of red, which crops up where undulations and hills occur.

(5.) *Description of Forests.*—Mostly all high forest with occasional blanks, the trees being finer and getting more matured as the southern and western limits from Haliyál are approached. The prevailing species are:—Tectona grandis, all the terminalia varieties, dalbergia latifolia, lagerstrœmia microcarpa, eugenia dalbergioides, inga xylocarpa, careya arborea, dillenia pentagyna, and the conocarpus latifolia, mixed with bamboos of several varieties.

(6.) *Timber Depôts.*—Haliyál and Madanhali.

(7.) *Timber Markets.*—Dharwar, Hubli, and Gadag towards the east; and Belgaum, Kaládgi, and Kolhápur towards the north.

(8.) *Lines of Export.*—East, *viâ* Mavinkop, Dharwar, and Hubli; north, *viâ* Madanhali.

(9.) *Villages within the reserves.*—There are many.

(10.) *Rights of the surrounding Population.*—None, excepting in the district reserves, where grazing and the right to cut small wood of certain descriptions for inferior houses, agricultural implements, and firewood is free.

(11.) A *map* of the Haliyál Division, coloured and showing the boundaries of the cultivation, waste lands, district and ordinary and special reserves, on a scale of 4 inches to the mile, has been prepared.

(12.) *Working Plan* has not yet been prepared, neither have the whole of the special and ordinary reserve limits been yet decided on.

II.—The Kadra Reserves

18. Were begun in November 1875, and occupy the valleys and hills on both sides of the Kálinadi, or black river, below the gháts.

(1.) *Area*—

Special and ordinary ...	30,720	acres.
District	29,740	„
Total...	60,460	acres, or 94·30 square miles.

(2.) *Boundaries.*—On the north by the Goa Territory and the Supa and Yellápur gháts, on the east and south by the Ankola Petha of Coompta, and on the west by the sea-coast.

(3.) *Topographical Description.*—The reserves are situated in valleys and on the slopes and tops of hills. The Kálinadi, or black river, runs through them, and is much used in floating timber, bamboos, and firewood.

(4.) *Soil.*—The principal geological formation is granite, and the soil is mostly red and gravelly, except close to the coast, where it is sandy.

(5.) *Description of Forests.*—Almost the whole area, excepting some patches of evergreens or moist forest, is made up of old kumri ground.

There is an abundance of wood fit for house-building and other purposes; but in growth, quality, and quantity it cannot compare with that found in the Haliyál reserves. Teak is found in parts, but the prevailing species are:—The terminalias, lagerstrœmias, dalbergia latifolia, inga xylocarpa, careya, arborea, and dillenia pentagyna, mixed with strobilanthes and bamboos. There are teak plantations, having an extent of some 400 acres, situated in these reserves.

(6.) *Timber Depôts.*—The Kodibág depôt at the mouth of the Kálinadi, and within 1½ miles of Karwar, and Kadra 20 miles up the river.

(7.) *Timber Markets.*—Karwar, Bombay, and Bhaunagar.

(8.) *Lines of Export.*—The sea.

(9.) *Rights of the surrounding Population.*—Almost the whole area is claimed by a ryot of the village of Mullápur, on the Kálinadi. Judgment has been lately given against him in the Kanara District Court, but then against this he has appealed: there can be no question of doubt, however, but that the claim set up is an infamous and daring attempt to swindle, and that the appeal will be rejected. Beyond this there are no rights, except in the district reserves, and there they are in every respect similar to those enjoyed by the villagers of the Haliyál Division.

(10.) A *map* of the reserves, similar to that of the Haliyál Division, is in course of preparation. Scale, 4 inches to the mile.

(11.) *Working Plan* remains to be prepared, so also have the respective limits of the special and ordinary reserves to be fixed.

Belgaum Districts.

19. The forests of the Belgaum Collectorate, excepting those of the Bidi Taluka, are situated on the slopes of trappean

and sand-stone hills, the valleys being generally cultivated. These hills are very steep and almost invariably covered with loose stones and boulders. The soil is red and shallow, and its inferiority increases on approaching the ghâts, the upper slopes and summits of which consist of little else but laterite and boulders, bare of everything save scrub and grass.

20. The physical aspect of a relatively small area about 150 square miles in the south of the Bidi Taluka, bordering Kanara, is, however, far better. There the rocks are chiefly granite, the soil is deeper and mixed with quartz, and the ground gently undulating, free from loose stones, and protected by a crop of superior, forest trees.

21. The prevailing varieties here found are tectona grandis the terminalia and lagerstrœmia varieties, dalbergia latifolia pterocarpus marsupium, inga xylocarpa, careya arborea, eugenia jambolana, and dillenia pentagyna, mixed with several species of bamboos.

22. There are also numerous patches of evergreens along the ghâts containing artocarpus, myristica laurifolia, cinnamomum iners, and many of the other kinds peculiar to them as prevail in Kanara.

23. Beyond this tract, the northern limits of which the Malprabha River may be accepted from the point where it rises in the ghâts to Khánápur, and from there the high road to Bidi and Lingunmutt, and its western, the inner or eastern slopes of the ghâts, there are no forests yielding large timber, though immediately north of Belgaum, in the vicinity of Dadi, Saundatti, Parasgad, and Deshnur Gad, there are considerable hill-tracts more or less covered with small wood useful for inferior houses, and much firewood.

24. Further north and bearing east it is still more bare, and there is really nothing but open scrub. In Gokák and Chikori cactus is the prevailing species, and large areas consist of but little else until the plains are reached, where there are some small kurans of the acacia arabica to be met with here and there.

25. The above, including paras. 19 to 24, is a brief sketch of the general character of the lands available for forests in the Belgaum Collectorate, and from which the forest reserves, begun in November 1873 and now completed, have been selected.

Only, however, such as have been reported on by Mr. J. L. Laird, the Assistant Conservator engaged on them, and the selections of the Conservator are included in this report.

I.—Bidi Reserves.

26. (1.) *Area.*—277·11 square miles.

(2.) *Boundaries.*—On the north by the Belgaum Taluka, on the west by the ghâts and the Goa Territory, on the south by Kanara, and on the east by Dharwar.

(3.) *Topographical Description.*—The reserves are made up of large blocks running into one another, and are alternately flat and gently undulating until the slopes of the ghâts are met with, when they become rather rugged.

(4.) *Soil.*—The principal geological formation in the southern portion is granite, the soil being deep and mixed with quartz; but along the ghâts the soil is red and gravelly, and much laterite and trap met with.

(5.) *Description of Forests.*—Fairly high in the southern portion and containing much teak, and the varieties named in para. 21, mixed with bamboos. Towards the west and on the inner slopes of the ghâts and valleys there is much useful timber, but no teak; and along the summit or plateau and the western slopes it is very bare and reduced to scrub from kumri cultivation.

(6.) *Timber Depôts.*—Linginmutt, Bidi, and Khánápur.

(7.) *Lines of Export.*—Towards the plains *viâ* Khánápur, Belgaum, and Lingunmutt.

(8.) *Timber Markets.*—The towns and villages in the open country to the north and north-east, *viz.*, Belgaum, Kolhápur, Kaládgi, &c., &c.

(9.) *Rights of the surrounding Population.*—None, excepting in the district reserves; but here there is much free grazing, and the villagers within forest limits allowed on application to cut certain wood for the repair of their houses and for agricultural implements. Frewood is also allowed to them free of charge.

(10.) A *map* of the reserves, on the scale of 4 inches to the mile, has been prepared, excepting the ghâts, which is in hand.

(11.) *Working Plan* has not been prepared; neither have the several limits of the special, ordinary, and district reserves been yet decided on.

II.—Belgaum Reserves.

27. (1.) *Area.*—55·02 square miles.

(2.) *Boundaries.*—On the north by the Kolhápur States, on the west the Sáwant Wári country, on the south by the Bidi

reserves, and on the east by those of Chikori, Gokák, and portions of the Sángli and Kurundwád jaghirs.

(3.) *Topographical Description.*—The reserves lie along on near the gháts, and the ground is rocky, steep, and stony; and timber operations would, in consequence, be difficult.

(4.) *Soil.*—There is much laterite and sometimes trap, and the surface soil is scanty, and mostly red and gravelly.

(5.) *Description of the Forest.*—A considerable portion consists of bare peaks and ridges. The upper slopes are also more or less bare; but the ravines, water-courses, and lower slopes are generally fairly stocked with firewood and small trees suitable for roofing and huts. There is a fair portion of the superior species, such as terminalias and inga xylocarpa; the prevailing varieties are, however, careya arborea, eugenia jambolana, bauhinia racemosa, grewia tiliæfolia, phyllanthus emblica, and lagerstrœmia macrocarpa. There are also some patches of evergreens with their lofty, but soft, varieties.

(6.) *Timber Depôts.*—None.

(7.) *Markets.*—Chandagad and, perhaps, Pálné are the only large villages in the immediate neighbourhood of the forests; but Belgaum is only from 12 to 30 miles distant.

(8.) *Rights of the surrounding Population.*—The same as shown in the district reserves for Bidi.

(9.) *Maps* of the reserves, on a scale of 4 inches to the mile, have been prepared; but the limits of the special, ordinary, and district reserves have not yet been fixed.

III.—Chikori and Goka'k Reserves.

28. (1.) *Area.*—113·23 square miles.

(2.) *Situation.*—It is difficult to give explanation of boundaries, but a line beginning at Kákati, 8 miles north of Belgaum on the Poona road, and passing through Wunnur, Mámdápur, Gokák, Yamkanmardi, and back to Kákati, would almost enclose the area in which the Gokák and Chikori groups are situated.

(3.) *Topographical Description*—The hills, although not high, are generally steep, and covered with loose stones and boulders.

(4.) *Soil.*—The rocks consist of porphyritic trap, and the surface soil of a light and very quartzy sand.

5. *Description of Reserves.*—Very little teak is found. In and near the Binanholi and Saldhál forests it is plentiful, but always very small; elsewhere it is extremely rare. The other trees and

shrubs are found in mixed woods all over the area. Conocarpus latifolia is very common in the better parts, and so also are the terminalias, chloroxylon sweitenia, buchanania latifolia, cassia fistula, and ixora parviflora (all small and stunted), but cactus and thorns are by far the most numerous. On the whole the reserves may be described as consisting of low, open firewood, with some small timber suitable for roofing and huts.

The Chikori reserves on either side of the road from Yamkanmardi to Saundatti are the best, and comparatively free of cactus; but, as a rule, prickly-pear is the most numerous species, large areas in Gokák consisting of nothing else. This plant is much to be feared, and if some means is not discovered to check its progress it will certainly take possession of all the forest land. As a rule, the lowest slopes only are densely stocked with cactus, but it is gradually forcing its way up to the very tops of the hills and driving away the indigenous vegetation.

Reporting on the Gokák reserves and the cactus plant, Mr. J. L. Laird, a trained Assistant Conservator of Forests, writes:—

> "The insect known by the native name 'Kiramanji,' which is imported from Bangalore, answers to the description of the female cochineal insect (cocus cacti, L.) of commerce. Perhaps it might be the same species, but it certainly belongs to the same family and yields a beautiful crimson dye, which is used here for colouring cloth. It would be well worth while to import some live females from Mysore and to put them out in Gokák. It is reasonable to expect that they would thrive, as our climate must be similar to that of Mysore. This seems to be the only way in which there is a chance of turning the large areas of cactus to account, as it would never pay to clear them for forest purposes. If the experiment were successful, the cactus forest, instead of being worse than useless, would become an important, perhaps the most important, source of forest revenue. Should the experiment be unsuccessful, it might be worth while, considering the industrial importance of the insect, to import *the* cochineal-louse from its native country, or from one of the countries to which it has already been exported, for it was long ago acclimatized in Java, Spain, and Algiers; 80,000 pounds of raw material having been imported by England from Spain in 1850."

(6.) *Markets.*—The principal markets within easy reach of this forest group are Gokák, Belgaum, Chikori, Yamkanmardi, Hukeri, Mamdápur, and many other minor but still large villages, such

as Khánagaon, Seiladhal, and Ankalgi. In fact, owing to the many large towns and easy communications in this direction, a well-stocked fuel and small wood reserve would be extremely valuable and productive of much revenue.

(7.) *Rights of the surrounding Population.*—In the district reserves the same as enjoyed in the Bidi and Belgaum reserves.

(8.) *Maps*, on a scale of 4 inches to the mile, have been prepared; but the special, ordinary, and district reserve limits have not yet been fixed.

IV.—Deshnur Gad Reserve.

29. (1.) *Area.*

Special and ordinary	15·50	square miles.
District	6·59	do.
Total...	22·9	square miles.

(2.) *Boundaries.*—On the north by the Gokák reserves, on the east by the open cultivated country, on the south by the road between Belgaum and Kaládgi, and on the west by the Sángli State forests.

(3.) *Topographical Description.*—The reserves lie in narrow valleys and along the tops and sides of hills.

(4.) *Soil.*—Light, sandy loam on trap.

(5.) *Description of the Forest.*—Some small teak, mixed chiefly with conocarpus latifolia, terminalias, phyllanthus emblica, odina wodier, and many thorn varieties, but no cactus. This reserve is altogether very promising, and some few years hence will afford considerable quantities of small wood for inferior buildings and much firewood and bamboos. Since being taken up, the valleys have been planted with some 80,000 plants of various kinds, and along the water-courses bamboos have been put down with considerable success. This reserve was sanctioned by Government in 1872, and during the year 96 cairns, at a cost of Rs. 216, were erected to mark the boundaries.

(6.) *Markets.*—Belgaum, but 12 miles south, and many neighbouring large villages.

(7.) *Lines of Export.*—The road between Belgaum and Kaládgi and Belgaum and Gokák.

(8.) *Rights of the surrounding Population.*—On the district reserves the same as shown in Bidi and Belgaum.

(9.) A *map* of the reserves, on a scale of 4 inches to the mile, has been prepared.

(10.) *Working Plan.*—Improvement and planting for the present.

Dharwar District.

30. The selection of the Dharwar reserves was begun in 1871 and completed in 1875. The whole area has been sanctioned by Government, but they are now being re-mapped on the standard scale of 4 inches to the mile, and the division of them into special, ordinary, and district reserves under consideration. It may be said of them that they extend in a long, narrow strip of from 1 to 6 miles in width and 70 in length between the Kanara forests and the open cultivation to the east; their extreme northern limits touching and being bounded by the Kanara and Belgaum Collectorates, near Lingunmutt, and their southern by the Mysore State.

The Dharwar, Kalghatgi, Banka'pur, and Ha'ngal Reserves.

(1.) *Area*—

Dharwar	...	...	30·46 square miles.
Kalghatgi	...	...	73·50 do.
Bankápur	...	...	29·66 do.
Hángal	...	...	22·86 do.
	Total	...	156·48 square miles.

(2.) *Boundaries.*—On the north by the Belgaum District, on the east by the open cultivated country, on the south by the Mysore Territory, and on the west by Kanara.

(3.) *Topographical Description.*—Hilly and undulating in the Dharwar, Kalghatgi and Bánkapur reserves, and flat in those of Hángal.

(4.) *Soil* is red and black, but where the teak prevails it is of a lighter colour, loose, and veined with quartz. The rock is mostly granite, but iron-stones and sand-stones are met with.

(5.) *Description of the Forests.*—Teak prevails throughout the whole of the Dharwar, Kalghatgi and Bankápur reserves, but almost disappears towards Hángal, where it is rare. On some of the best stations it grows extremely well, and promises to attain a considerable size; but, as a rule, the forests will never yield timber

except in the form of poles. Excepting in the Hángal, or most southern portion of the reserves, where the forests are thin and require more than ordinary care to prevent their extinction, the ground is tolerably well protected by a superior crop of trees capable of giving a large annual yield of round building material and firewood. The commonest tree varieties mixed with the teak are the terminalias, lagerstrœmias, careya arborea, butea frondosa, pterocarpus marsupium, conocarpus latifolia, odina wodier, and phyllanthus emblica. Santalum album is also very common, but yet small, and bamboos of kinds abound.

(6.) *Timber Depôts.*—At Dharwar and Kalghatgi there are permanent depôts where timber and firewood may be obtained all the year round. There are always, however, from 8 to 10 temporary depôts established during the working season along the line of forests at which wood and fuel is collected and sold by auction.

(7.) *Lines of Export.*—Dharwar, Hubli, Turrus, Bankápur, and Hángal.

(8.) *Rights of the surrounding Population.*—None, but free grazing in certain parts, and the rights to collect dry wood for fuel, but not for sale.

(9.) *Maps.*—The original maps are being revised and drawn on the standard scale of 4 inches to the mile.

(10.) *Working Plan.*—Not yet determined on. The division of the reserves into special, ordinary and district blocks is under consideration.

31. The pillars sanctioned to demarcate the Dharwar reserves take the form of stone cairns, 6 feet square at the base and 4½ high, gradually sloping away at the top to 2 feet.

32. Up to the end of 1875-76, 923 of these pillars were erected at a total cost of Rs. 4,677-7-6; during the year under report none were put up, but Rs. 53-15-6 were expended in repairs.

33. The kinds of boundary marks and the material to be used in constructing them, so as to in the most lasting and least expensive manner define the forest reserves, will require further consideration.

34. When first the question was raised, the Collector of Dharwar, Mr. Robertson, recommended telegraph posts (a very excellent suggestion if only we could get them); the Revenue Sur-

vey Commissioner, S. D., recommended stone cairns of the size and description shown in para. 31 ; and the Conservator, that the marks of the revenue survey should be utilized and made double their present size, with a pole firmly fixed in the centre. The discussion ended, however, in loose stone cairns being ordered, and they are now found both expensive to build and expensive to maintain.

35. It is thought that instead of the present stone cairns (which are made rubbing or scratching stones by cattle, and are often pulled to pieces by Wuddurs in search of rats and boys looking for honey) being generally adopted it would be best to build them only where suitable. Stone is on the spot, and, therefore, ready at hand, and not likely to cost over Rs. 2-8-0 each. Trees with boards let into them at a height of from 12 to 15 feet would do admirably, and be a most lasting mark, and, where trees are not available, strong wooden posts of jamba (inga xylocarpa), which is almost indestructible, let well into the ground with a strong teak board 30″ × 12″ × 2″, fitted in and nailed, might be used.

36. No boundary-mark should cost more than from 1 to 2½ rupees. In the northern parts of the division—Upper Belgaum and Kaládgi—cairns might be used, and also along the gháts, for stone is plentiful; but in Kanara, Southern Belgaum, and Dharwar, boards let well into trees are the most lasting and cheapest kind of boundary-mark ; besides they have the advantage of being more conspicuous, and by letters, marks, or colours, might be made to denote the kind of reserve and block.

37. In Kanara some of the old sign-boards at cross roads have been in existence for the last fifteen years and more, and are as strong and firm as when first put up ;—firmer, perhaps, for the bark has grown partly over the board, and make it a portion, as it were, of the tree itself.

38. The question of boundary-marks is an important one, and will be made the subject of special report.

KALAD'GI DISTRICT.

39. Here, excepting some kurans of small areas, bearing acacia arabica, zizyphus jujuba, and eugenia jambolana to be found on or in the vicinity of the Krishna, Ghatprabha, and Malprabha rivers, the lands set apart for forests are situated on the hills south of the Krishna and between that and the Dharwar Collectorate, the eastern and western limits being met by the Nizam's Dominions on the former, and the Rámdurg, Terdál, and Mudhol jaghirs on the latter side.

I.—Ba'da'mi and Hungund Reserves.

40. (1.) *Area*—

Special and ordinary...	79·07	square miles.
District	71·96	do.
Total...	151·03	square miles.

(2.) *Boundaries.*—On the north by the Bágalkot Taluka; on the east by the Nizam's Dominions and the open cultivation of Eastern Hungund; on the west by the Rámdurg, Terdál, and Mudhol jaghirs; and on the south by the Malprabha River and the Dharwar Collectorate.

(3.) *Topographical Description.*—Hilly, very rugged, and for the most part covered over thickly with loose boulders and stones.

4. *Soil.*—The principal geological formation of these hills would appear granite, lime-stones, iron-stones, and sand-stones mixed with quartz. The shapes presented by the hills are very curious, some being hog-backed and in many parts showing the "lift" rather abruptly for several feet bound up in beautiful party-coloured quartz and jasper-like formations not at all unlike Mosaic work, whilst others are terraced with considerable plateaux, and edged almost all round with high rocks having great caverns. The soil is generally scanty, and in most parts of a light and quartzy sand.

(5.) *Description of Forests.*—The condition of the trees and scrub covering the reserve area is very varied, and in nowhere is it satisfactory.

Towards the Rámdurg and Terdál jaghirs there is a considerable stretch of rough country covered more or less with scrub and small trees of such varieties as the conocarpus latifolia, cassia fistula, melia azedarach, diosphyros melanoxylon, acacia catechu, chloroxylon swietenia, and some of the armed and unarmed acacias, with numerous thorn varieties. The cassia auriculata, a shrub of small size, the bark of which is much used in tanning, is also to be found in great abundance everywhere. The hills that are best covered with wood and scrub are those of the extreme eastern part of the Badámi Taluka and a part of Hungund adjoining them. In this direction the cover over many parts, owing to the stricter conservancy of the last five years, has much mproved, and bamboos that were all but extinct in 1870 now make a fair show on some of the hill-sides. There can be no doubt

but that in the course of a few years the revenue in firewood and small wood from these reserves will be very considerable ; for the large towns of Kerur, Kaládgi, Bágalkot, Guledgudd, Hungund, Ilkal, and Badámi, besides many of the minor ones in the neighbourhood, will be entirely dependent upon them. Also Ron, and Gadag-Betigeri with its two cotton-presses driven by steam, will, as soon as ever the supply of fuel can be made available, draw largely from them.

(6.) *Timber Depôts.*—None.

(7.) *Markets.*—The towns above named.

(8.) *Rights of the surrounding Population.*—Free grazing in certain portions of the district reserves, and the right to collect dry fuel in them for use, but not for sale.

(9.) *Maps.*—Not yet prepared.

(10.) *Working Plan.*—Improvement and strict conservation only so far as concern the special reserves which have been partly defined from the ordinary reserves, but not shown here.

41. In addition to the reserve areas shown in the table of para. 9, there are also certain kurans bearing much acacia arabica on the rivers in other parts of the district taken charge of, but the particulars of which have to be deferred for next year's report.

42. The expenditure incurred from the time of first taking the reserve selections in hand in 1870-71 and up to 1875-76 is shown below :—

Year.	District.	1			2			3		
		Cost of Demarcation Lines and Boundary Pillars or Marks.			Cost of Forest Survey.			Compensation paid for Land taken up for Forest purposes.		
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
From 1870-71 up to 1874-75.	Kanara ...	.....			1,960	5	4	.....		
	Dharwar and Belgaum	4,382	11	0	13,951	6	0	23	9	6
1875-76.	Kanara ...	.....			10,923	7	11	.....		
	Dharwar ...	294	12	6	.....			.....		
	Belgaum ...	216	0	0	7,388	5	1	56	10	6
	Total ...	4,893	7	6	34,223	8	4	80	4	0

43. In para. 9 the total area selected is shown to be 1,135·61 square miles, so that up to the present the cost per square mile has come Rs. 30-2-3 only, which cannot be considered other than most moderate.

44. The following exhibits the areas done by the several officers :—

The Conservator of Forests, S. D. In Belgaum and Kaládgi.	301·43	square miles.
Mr. E. J. Ebden, C.S., on special duty. In Kanara.	345·96	do.
J. L. Laird, Assistant Conservator of Forests. In Belgaum.	316·98	do.
Total	964·37	square miles.

45. Thus it will be seen that the personal selections of the Conservator of Forests have saved Government almost the cost of a third establishment, for Rs. 34,223-8-4 are entirely debited to the salaries of Messrs. Ebden and Laird and their establishments.

SECTION II.—REQUIREMENTS OF THE SURROUNDING POPULATION.

46. The arrangements practised in this division so as to meet the wood requirements of both the surrounding and outside population were fully gone into in the report for 1873-74, and the subsequent concessions contained in Government Resolution No. 3726, dated the 17th July 1874, that, under certain conditions, gave the poorer classes living within forest limits wood free of charge for repairing their houses and for agricultural implements, were referred to in para. 6 of last year's report.

47. In these arrangements there have been no changes during the year under report ; moreover, the spirit of the Government desires in respect to them have been faithfully observed by the Department to the intense satisfaction of the classes concerned.

48. It is always best to err on the side of liberality, but more particularly where it adds to greater contentment and comfort in unhealthy districts ; nevertheless it is the duty of the officers carrying out instructions to note the results of them in a prominent manner, and, therefore, in showing the free grants made in this division it is thought desirable to go more into particulars than the mere usual recital of the value of the wood given gratis. The object is not to check liberality in dealing with people living within forest limits, so far as it has already extended, but to guard against its assuming undue and dangerous proportions.

49. The following comparative statement exhibits the free grants made in the several collectorates, calculated at the seignorage rates, which are, as a rule, from one-half to one-third less than those of the auction sales :—

District.	1874 75.			1875-76.		
	Rs.	a.	p	Rs.	a.	p.
Kanara	5,385	15	0	5,072	8	3
Belgaum	200	0	0	1,845	11	5
Dharwar	35	0	0	373	14	0
Kaládgi	.....			.....		
Total...	5,620	15	0	7,292	1	8

50. From this it will be observed that the people were not slow in availing themselves of the concessions made them in Government Resolution No. 3726, dated the 17th July 1874. This is not to be wondered at in the least, neither is it intended to infer from these remarks that the grants are too large and open to objection ; on the contrary they are not thought excessive by any means, and it is felt that so long as the free and independent cutting of material is strictly prohibited, and application for all requirements to the proper officers insisted on, much good is likely to result from the liberal measures adopted.

51. In Kanara circumstances are altogether different. There there are rules of very long standing that regulate privileges, and allow of a ryot cutting, for his own use and not for sale, certain kinds of wood for inferior buildings and agricultural implements in such parts of the forests as are specially set apart for the exercise of them ; but the growth of like privileges in Belgaum, Dharwar, and Kaládgi, where the forests are inferior and of so much smaller area, would be dangerous in the extreme, and result in irreparable harm, and it is to this, and anything like a general permission to cut without special license in the other districts, that the Conservator would desire to draw particular attention.

52. The following table, for which the Conservator has to thank Mr. E. J. Ebden, C.S., for, will in a very clear manner show how very considerable the privileges of the Kanara ryots are, and that it is not desirable to extend them elsewhere :—

LIST of Agricultural Implements in common use in the Haliyál or eastern portion of the Supa Taluka in Kanara for which Wood material is allowed free of charge.

No.	Implements.	Particulars of Measurement, &c., of the Wood required.							Remarks.
		Total in use in the taluka.	Required in the rough for each Implement.		Measurement of the total quantity of Wood required.	Average duration of Implement.	Quantity of Wood required each year.	Value according to Seignorage Rate.	
			Girth.	Length.	Candies.	Years.	Candies.	Rs.	
1	Rante (plough-share)... ...	11,020	3	4	1,983	1	1,983	5,949	There are two required—a large one for the centre and a small one for the edges of the field.
2	Rante-isu (shaft)	5.510	3	8	1,983	5	396	1,188	
3	Rante myeli (handle) ...	Do.	3	2	495	5	99	297	
4	Rante naga (yoke-bar) ...	Do.	2	8	881	5	176	264	
5	Doni (clod-crusher)	Do.	4	6	2,644	4	661	1,983	This is a plank generally selected from the outer wood of a hollow dindul (conocarpus). Two are used: a large one after ploughing and a light one when the seed have germinated.
6	D. naga (yoke-bar) ...	Do.	2	6	1,322	5	264	396	
7	Kunti-dindu (cleaner) ...	8,000	4	4	2,560	10	256	768	Used after the large doni. A heavy wood preferred.
8	K. naga (yoke-bar) ...	4,000	2	8	1,280	5	256	384	
9	Halakina dindu (rake) ...	3,000	2	6	720	10	72	216	Resembles the common wooden field rake.
10	Huragi (drill)...	3,000	3	4	540	10	54	162	An ingenious instrument resembling a rake with hollow teeth, to which the seeds are conducted by bamboo tubes inserted in a hollow sphere containing the seed.
11	K. naga (yoke-bar)	3,000	2	6	720	10	72	108	
12	Yedi gunti (hoe)	5,510	2	4	440	10	44	132	A two-pronged hoe used in cleaning grass away in wet weather.
13	Hutgunti (many-pronged hoe)	5,510	2	4	440	10	44	132	A many-pronged hoe used in dry weather.
14	H. naga (yoke-bar)	5,510	2	12	2,644	10	264	396	This is wanted long, to prevent the bullocks' feet coming in contact with the prongs of the hoe. One serves for 13 and 14.
15	Shafts for 7, 9, 10, 12, and 13 .	22,068	½	8	3,530	4	882	2,646	Rough, flexible poles: two are used to each implement.
	Total...	...	...	...	22,182	...	5,523	15,041	

53. With reference to the table given, Mr. Ebden writes :—

"Attached to this report is a list of the quantity of the wood estimated to be required per annum in the Haliyál Taluka for the most common implements which every ryot uses, and of the value of that wood at permit rates. This has been prepared in consultation with the Mámlatdár and a 'panch' (committee) of ryots. As to its correctness, I am only afraid that the number of yokes of cattle employed in the field work must be under-stated at 5,510, which gives an average of only 1 yoke to 8 acres of cultivation. The total of wood annually required is the rather alarming quantity of 5,523 candies, valued at Rs. 15,041, or nearly one quarter of the assessment of occupied land in the Haliyál Taluka, and this does not include the wood allowed free for carts and sugar-mills, which is calculated at 456 kandies, valued at Rs. 1,135."

54. Figures are wanting to show the value of the wood taken free from the forests under the Kanara Rules for the repair of houses and for cattle-sheds but it must average at least as much more as that taken for implements, carts, and sugar-mills, and would, therefore, bring up the total annually required quantity of wood to 11,602 candies, having a seignorage value of Rs. 31,372, or almost half the occupied assessed land revenue of the Haliyál or eastern portion of the Supa Taluka, which has an area of 334·9 square miles, and contains 138 village divisions, with 27,891 people inhabiting 6,015 houses and possessing 23,236 cattle. The statistics are taken from Mr. Ebden's first report on demarcation, which shows the forest area of the Haliyál, or eastern portion of Supa, as selected, mapped, and completed by him, to be 251·61 square miles, divided into 184·06 square miles of special and ordinary, and 67·56 of district reserves.

55. Further comment regarding the privileges and wood requirements of the Kanara ryots would appear unnecessary. It would also appear unnecessary to say that privileges grow, and, therefore, that extending them to districts like Belgaum, Dharwar, and Kaládgi, where the forests are inferior and of such small area compared with those of Kanara, should be most carefully avoided.

56. Under this head there only remains to add that in classifying the reserve area selected for forest, due care is being observed that the district forest class, to which the rights of the surrounding population will be limited, is made as extensive as circumstances will permit of, so as to leave no grounds for

complaint on the part of the people regarding their wood requirements and grazing for their herds.

SECTION III.—PROTECTION.

57. The permanent protective establishments have remained the same during the year, as shown in the forest reports for 1873-74 and 1874-75.

58. It is needless to say that they are far too small, and altogether inadequate to protect the property they are supposed to guard, and at the same time maintain an efficient supervision over timber operations and works of improvement and conservation.

59. The District Forest Officers are loud in their complaints regarding this; but it is thought best to recommend no general reorganization or consideration of establishments, except for such districts only as the selection of the forest reserves are completed and sanctioned by Government.

60. In this way increase and reorganization will be gradual, and based on more sound principles than was possible in the reorganization of 1870, when the full area and character of the forests were but known in an approximate and general way.

61. Thus, Belgaum, Dharwar and Kaládgi, the reserve selections of which are almost completed, would have proposals of reorganization submitted for them as soon as ever the reserves selected receive the sanction of Government, and in Kanara, taluka by taluka, as also completed and sanctioned.

62. Early forest legislation is also urgent and pressing and should not be put off. It matters not so much whether Government entrust forest officers with power under an Act based on certain rules, but it does that the "status" of the Department should be defined and recognized.

63. What more clear grounds are there for this than the remarks of the Assistant Sessions Judge of Tanna, Mr. Ayerst, C.S., shown in the 93rd para. of Mr. Shuttleworth's Annual Report for 1874-75, "that the officers of the Forest Department have no '*locus standi*' and cannot collect revenue or demand the production of accounts;" also those of Mr. Grey, the Collector of Belgaum, who, when asked by the Assistant Conservator of Forests, Belgaum, whether he could not prosecute a purchaser at an auction for failing to pay, delivered the following opinion :—

> "The Collector is of opinion that in the absence of any legal enactment defining the duties of a Conservator or Assistant Conservator, a prosecution under Section 185 of

the Indian Penal Code would not stand in this and similar cases, as, in order to successfully charge persons with bidding at auction sales of forest produce, and not intending to perform the obligations under which they laid themselves by such bidding, it must be proved that the Assistant Conservator had an authority by law to hold the sale, in the same manner as a Collector has authority under Regulation XVI. to collect the public revenue entrusted to his management."

64. Surely both exposures (Mr. Ayerst's and Mr. Grey's opinions) are very humiliating, and deserve the very earliest attention so as to rectify such a state of affairs.

65. In this division there are no really glaring cases of robberies of forest property. In Belgaum an inamdar and some village officers were punished, and the cases properly disposed of; but, on the whole, the people have a wholesome dread of offending, for, whether through the Department or secret information, the risk is very considerable.

66. Compared with the previous year there is a decrease in the number of forest offences by 3, and of the 219 cases brought forward for trial, 181 convictions were obtained. The value of the confiscated property amounted to Rs. 2,813-3-0 against Rs. 1,085 of 1874-75, and the fines imposed aggregated Rs. 3,142-12-0 against Rs. 3,474-8-0 in 1874-75.

SECTION IV.—MANAGEMENT AND IMPROVEMENT.

1.—Plantations and Road-side Sowings.

KANARA DIVISION.

67. *Kadra Plantation.*—The area planted on the 1st April 1875 amounted to 310 acres, to which 40 were added during the year 1875-76. In this latter 42,000 transplants were put out from the nurseries, and 10,000 into the former to fill up blanks.

The result was, however, most unsatisfactory, for 28,000 failed. Mr. Barrett attributes the cause to "unfavourable rainfall and old seed."

The rains did certainly cease almost a month earlier than usual, but then, from what the Conservator observed at the time of his inspection and inquiries made at the time, it was apparent that the seeds were very late in germinating in the nurseries, and, therefore, the seedlings, at the time of removal from them for final planting out, far too small to ensure good results.

68. *Karwar Casuarina Plantation.*—The planting here was very successful, and the whole, from first to last, promises to be both ornamental and valuable.

During the year, 10 acres of the sandy beach adjoining the first planted area was taken up, and 4,500 plants put out; 1,500 were also put out in some parts of the old plantation. The plants attained a height of from 2 to 3½ feet, and looked exceedingly strong and healthy when the Conservator, in company with the Revenue Commissioner S.D., inspected them in February last. A very fine nursery of some 12,000 casuarinas, raised for planting out during the current year, was also inspected.

The whole area of this plantation occupy 45 acres, and there is a deal of land available for extending it.

69. No additions in planting were made during the year to the Murdi, Dewarbyle, Bumunhully, and Singatgeri plantations, having areas of 110, 15, 20, and 82 acres respectively, but protection from fire was afforded them, and creepers and bad growth kept down; and in the old teak plantation of Sullageri, on the Kálinadi River, a very marked improvement is visible in the growth of the trees, owing to the thinnings carried out in 1873-74.

70. *Barchi Plantation.*—The loss of plants caused by the fire reported last year on this plantation amounted to 20,000. These were replaced, and also 26,158 pitted out into the old plantation one between every four plants, in view to get a straighter growth, and better cover to the ground so as to keep down grass.

In addition, 20 acres of fresh ground were planted with 46,927 teak plants.

The total plants put out here, therefore, numbered 93,085, out of which 8,000 are reported to have failed. This is, however, but a very small percentage of failures considering the short rainfall. The other trees injured at the time of the fire last year were cut down level with the surface, and have thrown up shoots fully equal in size to the original plant.

The nurseries here on this plantation were certainly the finest the Conservator has ever seen.

It was formed and sown under his own superintendence over two years ago, and not watered until April, when the seed seemed to burst and germinate almost simultaneously in masses.

There can be no doubt but that nurseries should be formed of very loose earth and sand, and the seeds sown in them at least one year previous to being required.

71. *Australian Eucalypti.*—It is satisfactory to have to note that out of the 254 plants of this variety put out in masses at Haliyál and at Barchi but 5 died during the year. They still, however, remain very slender, though straight, and to all appearance healthy. The thickness of the stems vary from 1½ inches up to 8 in girth, and in height from 5 to 24 feet.

Further nurseries were formed of them at Barchi during the cold season, and there were, prior to the setting in of the rains, about 10,000 seedlings in beds, and 4,000 plants transplanted into small bamboo baskets ready for final putting out.

The Haliyál Forest Inspector, Mungeshrow, takes a great interest in this variety, and does all he can to ensure success.

The cost of the experiment has been but trifling, only Rs. 50-9-3.

72. The total expenditure on plantations, compared with the previous year, is shown below :—

Name of Plantation.	Amounts.			Expended.		
	1874-75.			1875-76.		
	Rs.	a.	p.	Rs.	a.	p.
Karwar (casuarina)	292	2	6	447	13	6
Murdi (teak)	1,396	2	2	828	2	7
Kadra „	4,540	9	8	2,430	7	1
Barchi „	3,860	15	10	1,789	7	3
Singatgeri „	232	12	6	161	1	6
Bomunhalli „	91	4	0	91	8	0
Total...	10,413	14	8	5,748	7	11

BELGAUM DIVISION.

73. Here the intended planting operations could not be carried out during the rains owing to the reduction of estimates from Rs. 2,420 to Rs. 1,412. Such, however, as were taken in hand have proved satisfactory.

74. *Deshnur Gad Plantation.*—10,046 mango plants and 4,692 of various other kinds were pitted out from the nurseries; also 489 clumps of bamboo seedlings, all of which are thriving well.

The cost incurred, together with the maintenance of the 70,307 plants in the plantation, amounted to Rs. 920.

75. There was a fire on this plantation during the year which destroyed or injured 2,625 plants. Of this number 1,375, when cut down, recovered and threw out fresh shoots.

The fire was caused by the carelessness of the forester in charge, who was punished by reduction from 1st to 4th grade.

76. *Dharwar and Belgaum Road-side.*—The planting of 5 miles of this road with clumps of bamboos raised in nurseries is reported to have been most successful; also that the condition of the former planting of the same kind is quite satisfactory. The cost amounted to Rs. 444-1-6; and it is further stated that there are bamboo seedlings still left in the nurseries raised sufficient to plant an additional 10 miles.

Rs. 65 were also spent in planting and sowing a fence around a timber depôt; and further miscellaneous sowings, experiments with the Australian varieties, and clearing of plants, cost Rs. 81-12-4, bringing the total expenditure up to Rs. 1,510-13-10.

77. The sandalwood plants further experimented with on the Deshnur Gad plantation give no grounds for believing that the plant has parasitical tendencies by attaching itself to the foster plants put down along with them in the same pits and beds.

78. Out of the 576 eucalyptus plants given for planting the Belgaum station last year, there are but 141 left. The height of those remaining vary from 2 to 11¼ feet.

The Conservator when he inspected the Deshnur Gad planta tion observed that the casualties were almost invariably caused by white ants attacking the roots.

DHARWAR DIVISION.

79. The planting operations were very limited, owing to, the Assistant Conservator states, an unfavourable rainfall.

80. *Sulkinkop Plantation.*—On this plantation a nursery of 3,000 mango plants was formed, but they were not put out on the plantation owing to the want of rain.

They were attended to by the gardener in charge throughout the cold and hot season, and are available for planting out during the present year. Blackwood seed were put down in 2,600 pits; they are reported to have come up well, and that but few of them dried up during the hot season. 770 "dindul" plants (conocarpus)

were put out in August, and would appear from the report to be also doing well. The total expenditure comes to Rs. 191-9-7 of which Rs. 120 is the pay of the gardener or watcher.

81. *Suptápur Plantation.*—The expenditure here is but Rs. 22-10-1—Rs. 7-2-7 on account of a gardener for 1 month and 5 days, and the balance for repairing the fence. A fire got into this plantation during the year, but did, it is reported, little or no harm.

82. *Ghongadikopp.*—The planting would appear to have been a complete failure here, for 17,536 babul plants put out from a nursery at a cost of Rs. 313-9-9 all died. The weather is reported as favourable at the time of transplanting; but shortly after the rain failed altogether, and the plants dried up. In addition to the planting expenditure above shown, Rs. 94-8-0 were paid for a watcher during the year.

83. *Holtikata Plantation.*—No expenditure beyond Rs. 1-8-0 to repair the fence, and watcher's pay Rs. 72.

84. *Khalghati Plantation.*—The transplanting of 11,860 teak plants out on to the plantation was successful; they are doing well. The expenditure on this account came to Rs. 275-13-3. To the expenses of the plantation—Rs. 96—the pay of a gardener or watcher has also to be added, making the total up to Rs. 371-13-3.

85. *Echanhalli Plantation.*—Here, also, 6,540 teak plants were put out; they are doing well. The cost of the plants and planting them out in pits came to Rs. 176-14-6, and the pay of a gardener or watcher to Rs. 84.

86. The total expenditure, therefore, on account of plantations comes to Rs. 1,328-9-2 in the Dharwar Districts, of which Rs. 466 are for gardeners or watchers.

KALA'DGI DIVISION.

87. In this division the planting and sowing operations have been fairly successful, and the cost of them moderate.

88. *Nurseries.*—Three were formed during the year at—

1. Mahakot (Badámi Taluka).
2. Mamdápur (Bijápur do.)
3. Gudur (Hungund do.)

The first was formed in a piece of ground rented by the Department for Rs. 8 per annum, and in it 10,000 bamboo and 2,000 nim (melia azedarach) plants were raised for planting out in the neighbouring forest numbers during the rains. Here there

is no land that can be taken up for regular planting, yet it is thought desirable to introduce the "nim" tree all over the reserves, and bamboos along water-courses where there are prospects of success.

The nursery at Mamdápur was formed in a garden where there is a deep well—water all the year round being drawn by means of bullocks.

For this the Department pays Rs. 40 yearly to the owner, who on his part agrees to water and maintain the nursery. This is an excellent plan.

Here 10,000 bamboo, nim, and mango plants were raised, and will be planted out on the plantation during the current year.

The Gudur nursery is formed at the gateway of the village near a well, the people of the house next it getting a few rupees to water and look after it.

The plants, 4,000 in number and all nim, are intended to be planted out on the hill above the town.

The total cost for collecting seeds, sowing, and up-keep of these nurseries, and some older ones adjoining, came to Rs. 170-3-10.

89. *Mamdápur Plantation.*—45 acres of land were enclosed and partly sown and partly planted. The sowing was done with babul, and from the nursery 10,000 nim and 1,000 plants of sorts were drawn and put down. Of the number planted about 2,000 are reported to have died; but 9,000, of from 3 to 5 feet in height, survive, which is very satisfactory.

Watering had, however, to be kept up during the hot months from the large tank lying below the plantation. The total cost is but Rs 905-6-9.

90. *Gudur Plantation.*—This can scarcely be called a plantation. The spot is on the plateau of a rather steep hill, and in the middle of a considerable-sized forest number. Here it is also thought desirable to introduce the nim tree, and there 7,000 plants, including mango and jambul (eugenia), were put out. Of this number 3,000 perished. The cost came to Rs. 115-11-6.

91. *Anuntápur Plantation.*—6,000 nim and 1,000 jambul, babul, and mango were put out; also 200 thick clumps of bamboo seedlings.

About 1,500 of the nim and the other varieties (mostly all the latter) dried up, but the bamboos thrive well. This plantation

has but a small area, and the only object in taking it up is to establish bamboos all along the stream at the lower end, and in which there is water all the year round.

The cost of this planting came to Rs. 262-4-8.

92. *Babul Sowings.*—At the recommendation of Mr. R. E. Candy, Assistant Collector, 25 acres of land at the head of the Kerur tank was ploughed and sown.

The seed came up very well, and the whole would have, no doubt, succeeded admirably; but at the desire of Mr. Hogg, the Collector, it was thrown up. The people of the town had, it is believed, informed Mr. Hogg that they did not want babul growing so near their tank, and hence the reason of the order, and the abandonment of the site at once by the Forest Department. The ploughing and sowing amounted only to Rs. 30-6-0.

93. *Road-side Sowing.*—A considerable portion of the road between Dharwar and Sholápur was sown with babul at a cost of Rs. 25-5-9.

94. The total cost of the sowing and planting operations, as detailed above, came to Rs. 1,509-6-6 in the Kaládgi District. The Conservator visited all of them in December 1875, and was much pleased with the manner in which they were conducted by the Sub-Assistant Conservator, Mr. Annaji Venkutrao, who takes much pains and evinces the greatest interest in all his duties.

2.—Thinnings and cutting of Creepers.

95. *Creepers* were cut and removed from trees by the foresters wherever met with on their rounds.

3.—Communications, Buildings, &c.

96. The works in charge of the Public Works Department, which were constructed and kept up entirely from forest funds in Kanara, are—

1st.—Dengi River bridge.
2nd.—Road from Haliyál to Supa.
3rd.—Do. do. to Yellápur.
4th.—Do. from Haliyál to Mavinkope.
5th.—Forest bungalows.

97. The total of the Public Works charges for the above works came to Rs. 24,787-8-11.

98. Also Rs. 1,350 were given as moieties to other roads conducted by the Local Funds Department, and in which the Forest Department had a joint interest.

99. In addition to the above charges, Rs. 1,927 to repair the Kodibág depôt wall, and Rs. 441-9-3 on account of cart-tracks in the forests, and for forest watch-houses, were expended departmentally.

100. In Dharwar Rs. 995-6-0 were spent by the Public Works Department on the road from Dharwar to Haliyál, and the amount made a charge to the Department. Rs. 5-12-9 were also expended in repairs to cart-tracks in the forests.

101. For the repairs to depôt-houses, and watch-houses, and other works, Rs. 261-10-11 were expended.

102. In Belgaum Rs. 732-7-10 were expended in constructing a forest road between the Khánápur depôt and the Nagurgali forests, and Rs. 102 in repairs. Also Rs. 432-5-6 were contributed to repair the Dharwar and Goa road under the Executive Engineer, Belgaum.

103. In buildings and other works, such as depôt and watch-houses, Rs. 576-9-3 were expended, and Rs. 56-10-6 paid as compensation for land taken up for forest purposes.

104. The total expenditure in the Southern Division, under VII.—"Works of utility for the development of Forests," during the year, came to Rs. 31,669-6-11.

105. The following exhibits by divisions the expenditure under VIII.—"Cost of Departmental Cattle," 3 "Feed and keep of Cattle":—

	Rs.	a.	p.
In Kanara	368	0	3
„ Dharwar	804	3	6
„ Kaládgi	6	14	0
Total...	1,179	1	9

106. The charges under IX.—"Cost of Departmental Plant and Tools" aggregate to Rs. 2,006-8-9 in all the divisions.

107. Under X.—" Miscellaneous," 2, "Law Charges" Rs. 24-2-10 have been spent in Kanara and Dharwar, and under 3, "Other Charges" of the same head, the expenditure comes to—

	Rs.	a.	p.
In Kanara	4,029	14	8
„ Dharwar	455	14	6
„ Belgaum	224	11	9
Total Rs....	4,710	8	11

SECTION V.—YIELD AND WORKING OF THE FORESTS.

108. There has been no change in the system of working the forests during the year from that shown in the report for 1873-74 as practised; neither does there appear any needed, or, at least, a better suggest itself at present.

109. It may be thought that where there are so many contracts the system can scarcely be called a departmental one; but it matters but little whether wood, after being once registered and marked for felling, is felled by contractor's or a Government axe, or the produce brought out by a contractor's cart or a Government cart, for both alike received the direct superintendence of the officers of the Department, and have to convey the material by one and the same road, and to one and the same depôt, where, unless the contractor has a share, and looks only to this share to pay him his expenses and a profit, all further interest in it ceases, and the wood becomes Government stock, to be disposed of by auction sale. So long, therefore, as the Government depôt system obtains, it would appear a matter of but little moment whether the wood is brought into the depôt by contractors or by Government cattle.

110. The Forest Department keep up about forty pairs of draught cattle of its own in Kanara and Dharwar, which are employed in the forest during the working season; a certain number are very convenient and needed, but then experience does not encourage the belief that economy and more regular working up to time is best served by own carts and cattle only.

111. The following comparative statement exhibits the outturn or yield of the several forest districts of the Southern Division during the years 1874-75 and 1875-76:—

112. Yield of forest, Southern Division, for 1875-76:—

	Description.	1874-75.		1875-76.	
		Number.	Candies.	Number.	Candies.
Kanara.	Teakwood...	6,133	8,904	5,219	9,980
	Blackwood	399	450	285	236
	Junglewood	3,829	6,184	3,063	3,836
	Cedarwood	1	5	..	...
	Rafters . . .. Pieces	11,156	...	23,296	...
	Teakwood ... ... Pieces	.	...	62	...
	Slabs	..	...	88	...
	Do.	...	...	...	4
	Scantlings	...	...	5,099	...
	Firewood ... ... Tons	3,602	..	678	...
	Do ... ... Indian Maunds	95,080	...	12,993½	...
	Charcoal ... ...Coombs	..	...	76	...
	Sandalwood in weight	.	25	..	47
	Junglewood given gratis	...	1,997	...	1,846
	Poles do. ... ... No.	...		25	...
	Firewood, cart-loads do. ... ... No.	...	...	8	...
	Bamboos do. do. ... ... No.	33,525	...	55,964	...
	Junglewood given on seignorage for local consumption ... No.	...	10,023	...	6,147
	Bamboos do. on do. do. for do. do. No.	5,58,045	...	4,07,338	...
	Firewood do. on do. for do. do. No.	..	...	..	...
	Do. do. head-loads ... .. No.	35,323	...	20,309	...
	Do. do. on do. do. for do. do. cart-loads No.	6,113	...	5,917¾	..
	Charcoal do. on do. do. for do. do maunds. No.	980	...	897	...
	Soap-nut pods do. on do. for do. do. maunds No.	...	...	23	...
	Palm trees do. do. for do. do. No.	16	..	48	..
	Bamboos given on seignorage for exportation ... . No.	18,67,399	...	31,02,703	..
	Firewood billets given on seignorage for exportation ... ... No.	13¼	...	...	...
	Do. do. do. ... ... Cart-loads	2,232	...	1,224	...
	Bark of shigay tree do. do. . (Weight).	...	20	...	...
	Do. do. do. do. Indian maunds.	819	...	..	...
	Do. do. pods do. do. do. Indian maunds	9,146	...	486	...
	Ashes of carwee tree do. do. .. Cart-loads.	7	...	3	...
	Jungle mase (kampu tree) do. do. Maunds.	98½	...	2	...
	Alcharee leaves do. do. do. ..	55	...	5¼	...
	Rattan loads ... ... No.	...	...	33	...
Dharwar.	Teakwood trees	25	...	39	...
	Do. rafters	2,489	. .	4,813	...
	Do. posts	490	..	1,133	...
	Muttee trees	6	...	3	...
	Do. rafters	772	...	1,104	...
	Do. posts	100	...	116	...
	Blackwood rafters	6	...	18	...
	Do. posts	11	. .	18	...
	Sandalwood pieces	...	...	224	...
	Junglewood	...	1,715	...	680
	Do. rafters	...	...	258	. .
	Firewood	...	3,303	...	1,543
	Junglewood	...	...	...	10
	Junglewood rafters given gratis	. .	36	295	...
	Bamboos do. do. ..	100	...	3,167	...
	Firewood do. do. Cart-loads.	3½		11	...

	Description.	1874-75.		1875-76.	
		Number.	Candies.	Number.	Candies.
Dharwar—*continued.*	Junglewood given on seignorage for local consumption.	...	...	...	3½
	Bamboos do. on do. for do. ...	77,825	...	10,411	...
	Firewood do. on do. for do. Head loads	2,106	...	17,899	...
	Do. on do. do. for do. Cart-loads	402	...	799	...
	Charcoal phurras given on seignorage for local consumption ... ... No.	910	...	...	...
	Thorns for do. do. Cart-loads	277	...	366	...
	Do. for do. do. Bullock-loads	282	...	152	...
	Teakwood rafters for agricultural purposes ..	7,026	...	13,772	...
	Blackwood rafters for do. do. ...	31	...	224	...
	Junglewood do. for do. do. ...	19,897	...	15,492	...
	Do. do. for do. Carts	...	...	392	...
	Sandalwood ... ...Pieces	...	...	16	...
	Do. ... ... Carts	18	...	54	...
	Firewood ... ... Carts	2,447	...	4,440	...
Belgaum.	Teakwood logs	725	1,319	974	1,347
	Do. poles	12,917	3,357	8,127	2,259
	Do. logs, inferior	8,800	...	804	309
	Do. poles do.			3,832	...
	Blackwood logs	150	190	48	48
	Do. poles	204	120	35	6
	Do. logs, inferior	1,137	...	53	26
	Do. poles do.			357	...
	Junglewood logs	114	210	176	309
	Do. poles	190	39	5,808	830
	Do. logs, inferior	56	...	14	10
	Do. poles do.			1,850	...
	Junglewood given gratis	...	54	..	823
	Bamboos do.	2,090	...	19,230	...
	Junglewood for local consumption on seignorage	..	34	...	81
	Bamboos for do. do. on do. ..	350	...	5,620	...
	Charcoal for do. do. on do. Phurrahs.	11,534	...	..	...
	Do. for do. do. on do. Maunds	...	...	1,368	...
	Firewood for do. do. on do. Cart-loads.	7,691	...	10,521	...
	Do. for do. do. on do. Head-loads.	53,133	...	56,570	...
	Do. for do. do. on do. Bullock-loads.	1,123	...	363	...
	Thorns for do. do. on do Cart-loads.	239	...	286	...
	Karwee for do. do. on do. do. ...	5	...	15	...
	Bamboos for exportation on seignorage ...	11,15,856	...	7,40,898	...
Kaládgi.	Junglewood jantees	1,211	...	1,520	...
	Do. fit for agricultural purposes. Cart-loads.	...	...	93	...
	Firewood .. .. Cart-loads.	...	...	72	...
	Do. for local consumption on seignorage ... ... Cart-loads.	101	...	56	...
	Do. for do do. on do. Tattoo and bullock-loads	2,059	...	679	...
	Do. for do. do. on do. Head-loads	15,137	...	10,268	...

113. On comparison it will be observed that the yield in Kanara, excepting in teak and bamboos, is much less than the previous year; that in Dharwar there has been more teak, but less junglewood and firewood; and that in Belgaum there has been a little more junglewood, but fewer bamboos.

114. The items of difference require notice and explanation.

KANARA.

115. Here we have an excess yield in teak logs of 1,076 candies, or 13,350 cubic feet, and 12,140 teak poles; the teak scantlings, 5,099 in number, should have been shown on the books of the Kodibág depôt last year, as they were then in store, but inadvertently omitted, and, therefore, do not belong to the yield of the year under report.

116. The excess of 13,350 cubic feet in teak is due to large contracts falling due at the coast depôt of Kodibág, and the punctual delivery of the timber there; otherwise there would have been a decrease instead of an increase in this also, had it rested with deliveries due at the above ghát depôts, where operations were sadly interfered with, owing to the prevalence of cholera.

117. The excess of teak poles to the number of 12,140 is owing to Mr. Ebden's exertions in clearing the ryots' survey numbers of teak as he proceeded with his inspection and selection of reserves.

118. In bamboos the increase of 1,235,304 in number is due to the increased demand caused by the lesser supply available from the Belgaum reserves.

119. In the decreased yield the most important items are in junglewood, both for sale and export and local consumption, and also in firewood.

120. The decrease in the yield of junglewood for export is due (1) to the lesser demand for it, owing to the ryots having begun to bring what belongs to them standing on their numbers into the market; and (2) the prevalence of cholera, which checked our operations. The smaller quantity of junglewood, some 48,450 cubic feet, taken for local consumption is also due to the ryots making more use of their trees than heretofore; the same also may be generally accepted for the lesser yield of firewood, with the addition, however, that cuttings were not proceeded with as intended, owing to the large stock in hand.

DHARWAR.

121. The cause of increase in Dharwar in teak is owing to increased cuttings on ryots' numbers so as to once for all clear them and leave no reason for the further interference of the foresters with wood on ryots' numbers, and the decrease in junglewood and firewood is due to the same reasons as that given for Kanara, "that the ryots are making more use of the trees on their fields."

122. There is a decrease in bamboos, owing to the extinction of the larger kinds from "seeding," and the protection given the crop coming on until it is more matured and ready for use.

BELGAUM.

123. The difference in increase and decrease in yield is less than elsewhere. There has been a little more junglewood and firewood drawn from the forests owing to the exhaustion of material in the Sángli Jaghir forests to the north of Belgaum, and this may be expected to increase to ten-fold that of the year under report.

KALA'DGI.

124. The increase and decrease here is of no consequence. At present the scrub tracts belonging to the inamdars are fast being laid bare, but after a few years' conservancy the increase of firewood and small wood from the Government forest reserve tracts must become very considerable.

KANARA.

125. *Saw Mills.*—The several kinds of machines received from England were shown in last year's report, and since then a separate report on their working, up to the 31st October 1875, has been submitted.

126. This report, which was printed and circulated by order of the Government of India to all Forest Officers, went fully into all the particulars connected with the ordering of the machinery, the difficulties that had to be grappled in putting it together, owing to the death of the Mechanical Engineer, the illness of his successor, and incompetency of the sawyer, together with its working, compared with the anticipations of the manufacturers, and the financial results; also proposals for an establishment and its future working. In fact, in it the greatest care was taken to give as complete a history as possible of the whole from the time the question of machinery to work in the forests was first raised and proposed by the present Conservator in 1869 up to the 31st October 1875.

127. It is intensely gratifying to be able to add here that the anticipations of the Conservator, as expressed in the printed report referred to, have in no respect proved too sanguine, for the machinery has worked smoothly and well without accident or hitch under its native foreman, and the profits of the year, calculated on only 3 months' working at Rs. 13,885, and on the difference in the receipts between the auction sale rates of the wood in the rough and those after conversion into scantlings, planks, and battens, have reached in the 12 months Rs. 18,810-3-10, or Rs. 4,925-3-10 more than indicated by the working during the months of August, September, and October 1875, the most favour-

able months of the whole working, specially reported on, and on which was based the probable result of the year.

128. It has further to be pointed out that the less favourable months of April, May, June, and July of 1875, during a part of which the whole of the machinery was not in working, and at a time when there was much confusion from want of experience, are included in the present report.

129. The following is the establishment proposed by the Conservator and sanctioned by the Governments of Bombay and India for the saw-mills :—

Monthly.

	Rs.	a.	p.
1 fitter or foreman	80	0	0
1 storekeeper...	50	0	0
1 head stoker	30	0	0
1 assistant do.	20	0	0
1 oilman	15	0	0
2 peons, at Rs. 8 each	16	0	0
1 sweeper	6	0	0
Total monthly...Rs.	217	0	0

Daily Rates for 26 days in each month.

	Rs.	a.	p.
1 sawyer in charge rack circular frame	1	8	0
1 do. horizontal do.	1	4	0
1 do. small circular do.	1	4	0
1 do. do. do. (new) ...	1	0	0
1 saw-sharpener	1	0	0
2 do. do. at 12 annas each ...	1	8	0
1 blacksmith	0	12	0
1 do. assistant	0	6	0
10 coolies (strong Sidees) at 8 annas each	5	0	0
2 ,, at 6 annas ,, ...	0	12	0
4 ,, at 5 annas ,, ...	1	4	0
6 ,, at 4 annas ,, ...	1	8	0
Total daily...Rs.	17	2	0
or monthly...Rs.	445	4	0

130. This makes a total monthly cost of Rs. 662-4-0, or Rs. 7,947 yearly. The small circular shown as new was received on transfer from the Dharwar Public Works Department, and a

book charge, agreed to between the Conservator and the Superintending Engineer S. D., of Rs. 700 made a debit to the machinery.

131. The actual quantity of sawn timber supplied to the Executive Engineer and other departments from the Saw-Mills during 1875-76, and the sums realized and credited, are shown in the following table:—.

Individuals supplied.	Description of Timber.						Amount realized.		
	Teak.			Junglewood.					
	C.ft.	in.	p.	C.ft.	in.	p.	Rs.	a.	p.
Executive Engineer, Dharwar	7,832	10	6	1,556	8	5	22,086	11	2
Do. do. Kanara	235	4	4	407	8	1	1,454	1	1
Local Fund and Municipality, Dharwar...	743	4	2¾	.....			1,978	2	2
Executive Engineer, Kristna Bridge ...	.....			3,352	8	0	5,122	3	8
Executive Engineer, Kolhápur	352	8	10	.....			906	13	6
Collector, Dharwar	56	9	10	67	1	10	270	15	8
Dharwar Factory	221	5	3	.....			614	9	0
Executive Engineer, Satara	.....			2,409	1	6	4,642	8	5
Do. do. Belgaum ... ,...	1,993	4	0	332	9	2	7,575	7	5
Total...	11,435	11	0	8,126	1	0	44,651	8	1

132. During the year under report the mills worked for 301 days, and converted 1,992 of teak, blackwood and junglewood, having a rough contents of 42,812½ cubic feet, into clean timber as shown below:—

Kind of Timber.	No. of Logs.	Measurement.		Deduct slabs and wastage.	Clean Timber.	Timber supplied during the year.				Balance of Stock.				Grand Total and Value of Out-turn.			
		Candies.	C. ft.	C. ft.	C. ft.	C. ft.	Rs.	a.	p.	C. ft.	Rs.	a.	p.	C ft.	Rs.	a.	p.
Teak	1,239	1,993¾	24,997	5,773	19,224	11,655	31,671	11	2	†7,569	17,028	0	0	19,224	48,099	11	2
Junglewood ..	*753	1,425	17,815¼	4,070	13,745	8,649	15,028	1	9	†5,096	7,962	0	0	13,745	22,990	9	9
Total..	1,992	3,424¾	42,812½	9,843	32,969	20,304	46,099	12	11	12,665	24,990	0	0	32,969	71,090	4	11

* *N B.*—This includes 1 blackwood log converted.
† Mostly awaiting removal.

133. The total cost of the saw-mills during the year under report, including all working charges and 10 per cent on capital outlay, was Rs. 12,628-2-4, and the estimated value of the wood supplied to the mill in the rough, at the auction-sale rates of the year, came to Rs. 39,651-14-9, making a total of Rs. 52,280-1-1 against the value of the out-turn in clean timber shown to amount to Rs. 71,090-4-10. This shows a profit to the Department of Rs. 18,810-3-10 during the year, which it would not have otherwise gained but for the conversion of the rough material at the saw-mills.

134. But in calculating the profits of the saw machinery at the difference between the value of the rough logs of timber made over to it for sawing up, at the average auction-sale rates obtained at the Haliyál depôt, and the same after being converted into planks, scantlings, and battens, the many indirect advantages accruing should not be lost sight of; they are :—

1st.—The saving in material (timber).

2nd.—The saving, on every candy of 12½ cubic feet, of Rs. 1-8-3, this being the difference between the rate paid for delivery at the mill and the Yelláپur depôt, which latter is a distance of 4½ miles further from the forests than the mills.

3rd.—The reduction in the cost and carriage of the timber used by the Public Works Department.

135. The following extract from a demi-official received by the Conservator from the Executive Engineer, Belgaum, will show this latter :—

"I am glad to hear that your mills are doing well. If they pay the Forest Department, I suppose they will be kept up; there is another indirect benefit obtained by them. They have lowered the price of timber in Belgaum very much, and doubtless have done so in other divisions."

136. The Conservator has also received similar acknowledgments from the late Executive Engineer, Dharwar, Mr. Scott.

137. There can be no doubt of the advantages to be gained by having machinery in forests, where there is much large timber and the carriage of it to the out-districts costly. In one matter, however, there can be no doubt, and that is, that in Kanara its success is complete and secured.

138. During the year permission to purchase a second saw-sharpener for use at the mills has been obtained, and an indent submitted for it on Her Majesty's Secretary of State for India.

139. The following table shows the rates realized at auction sales, per candy of 12½ cubic feet of large timber, held at the depôts for the last three years :—

	1873-74.	1874-75.	1875-76.
Haliyál Depôt.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Teak...	15 6 6	13 8 7	13 5 0
Blackwood	12 9 7	7 7 3	10 3 9
Junglewood...	11 11 9	9 9 7	9 2 5
Singinhulli.			
Teak	14 7 7	17 12 5	15 7 4
Blackwood	8 14 0	.....	8 10 8
Junglewood...	10 3 3	12 3 1	11 10 1
Khándpur.			
Teak...	.....	15 5 0	15 1 5
Blackwood	.....	10 15 8	14 9 0
Junglewood...	.....	11 7 2	12 10 9

PART II.

SECTION I.—FINANCIAL RESULTS.

140. The actuals of the year, as compared with the Budget Estimate, are, according to the figures of the Accountant General, as follows :—

	Budget Estimate for 1875-76.	Actuals, 1875-76.
	Rs.	Rs.
Revenue	5,85,000	5,17,068
Expenditure	2,90,201	2,91,116
Surplus...	2,94,799	2,25,952

141. Thus the gross receipts fall short of the estimate by Rs. 67,932, whilst the expenditure is in excess of it by Rs. 915.

142. The decrease or difference between estimate and actuals is due in Kanara, where it amounts to Rs. 39,275, partly to the lower rates obtained for timber at the auction-sales than was anticipated, and partly to the lesser demand for fuel and small wood, owing to the cultivators having much wood of their own, which they both sell and make use of. In Dharwar the decrease amounts to Rs. 7,702, and is due partly to the sale at two depôts having been prevented owing to the prevalence of cholera, and partly to a failure to collect and credit in time the proceeds of other sales amounting to Rs. 6,545, and now shown as an outstanding. In Belgaum it amounts to Rs. 11,907, principally brought about by lesser receipts in bamboos and minor produce than was anticipated; and, lastly, in Kaládgi it is Rs. 9,049, and caused by a credit to land revenue on account of grazing until the selection of the reserves there is completed, and also to the people preferring to resort for their fuel and charcoal to such scrub tracts as are still left the inamdars instead of coming to our reserves where there are certain conservancy observances to be complied with.

143. The expenditure is less than the estimate in Dharwar by Rs. 2,919, in Belgaum by Rs. 1,150, and in Kaládgi by Rs. 1,522; but in Kanara it is greater by Rs. 5,971. But here (in Kanara) also a considerable saving would have resulted were it not for the payment, to Mr. Barrett, of Rs. 3,104-4-3 on promotion from 2nd to 1st Grade Deputy, not provided for in the Budget, and the meeting of the charge of Rs. 8,643 under head VII.—"Works of Public Utility:" 1 Roads and Bridges, disallowed by the Government of India at the time of sanctioning the Budget Estimate, but subsequently admitted on the condition that the amount would be made a saving in the General Budget Estimate of the Southern Division.

144. There was also an excess payment made of Rs. 7,268 on account of I.—"Cost of Timber Operations. 1 (*a*) Timber" which was met from the general savings of the Budget estimate of the Southern Division, excepting Rs. 915, shown before as excess of expenditure over estimate. This is, however, but small, and therefore, of trifling consequence.

145. The following comparative statement exhibits by divisions the gross receipts and expenditure of 1874-75 and 1875-76:—

Receipts.

Collectorate or Division.	Actuals, 1874-75.			Actuals, 1875-76.		
	Rs.	a.	p.	Rs.	a.	p.
Kanara...	3,57,236	0	5	3,88,825	2	10
Dharwar	54,846	15	2	42,998	3	1
Belgaum	75,893	2	0	81,693	11	4
Kaládgi	1,456	3	7	3,550	10	4
	4,89,432	5	2	5,17,067	11	7
				4,89,432	5	2
Increase in receipts of 1875-76 compared with 1874-75...				27,635	6	5

Expenditure.

Collectorate or Division.	Actuals, 1874-75.			Actuals, 1875-76.		
	Rs.	a.	p.	Rs.	a.	p.
Kanara...	1,90,023	8	0	1,94,504	13	4
Dharwar	34,165	5	6	31,545	13	4
Belgaum	48,369	3	7	40,397	5	5
Kaládgi	4,449	14	11	6,254	3	2
Conservator of Forests, Southern Division	18,450	7	6	18,414	3	3
	2,95,458	7	6	2,91,116	6	6
				2,95,458	7	6
Decrease in expenditure in 1875-76 compared with 1874-75				4,342	1	0

146. Thus it will be observed that the receipts of 1875-76 are greater than those of the previous year by Rs. 27,635-6-5, and that the expenditure is less by Rs 4,342-1-0.

147. The actual financial results in cash of the two years under comparison stand —

	Actuals, 1874-75.			Actuals, 1875-76.		
	Rs.	a.	p.	Rs.	a.	p.
Revenue	4,89,432	5	2	5,17,067	11	7
Expenditure	2,95,458	7	6	2,91,116	6	6
	1,93,973	13	8	2,25,951	5	1
				1,93,973	13	8
Difference in favour of 1875-76 over that of the previous year 1874-75				31,977	7	5

148. Even though the Budget Estimate has not been worked up to, it is satisfactory so far to find that there is an increase in receipts of Rs. 27,635-6-5, and a decrease in expenditure of Rs. 4,342-1-0; or, in other words, a difference in favour of the year under report, compared with that of the previous year, of Rs. 31,977-7-5.

149. The receipts and expenditure having been shown and explained in the previous paragraphs, it but now remains to exhibit the transactions and condition of the Department at the close of the two years :—

	1874-75.	1875-76.
	Rs.	Rs.
Net revenue	1,93,974	2,25,951
Value of stock	2,40,170	1,43,451
Outstandings	63,630	95,771
	4,97,774	4,65,173

150. This shows an increase in outstandings amounting to Rs. 32,141, and a decrease in stock of Rs. 96,719, which denote the larger transactions of the Department with the general public during the year under report.

151. The reasons for decrease in stock are shown in para. 116 of Section V.—" Yield and Working of the Forests." These, com-

bined with larger sales and lower prices at the depôts, fully account for the decrease, though it is quite possible that instead of having to show a decrease in this particular, an increase would have resulted from the year's working had it not been checked by cases of cholera amongst the workmen.

152. The outstandings against contractors at the close of the year 1874-75 amounted to Rs. 16,238, and the sums advanced during the year to Rs. 36,402, making a total of Rs. 52,640. The recoveries in work done amounted to Rs. 27,959, leaving a balance of Rs. 24,681 to be adjusted hereafter.

SECTION II.—GENERAL REMARKS.

153. Owing to the continued decrease in the bids made for the right to collect myrabalans in the Karwar, Coompta, Honáwar and Yellápur talukas of Kanara, the experiment of a departmenta collection of them was made during the year under report. Thi proved most satisfactory, and resulted in a clear credit or net pro fit to the Department of Rs. 1,334-0-8, or nearly fivefold the amounts of the bids.

154. It is intended to undertake, during the current year of 1876-77, a further departmental collection in the same talukas, and if it proves as satisfactory as it promises to be, the departmental collection of the fruit will be introduced everywhere. Already what has been done has had a most beneficial effect, inasmuch as it has raised the bids in the Supa, Sirsi, and Siddápur talukas, where the hurda tree (terminalia chebula) that produces the myrabalans prevails largely, from Rs. 3,265, 1,155, and 1,309 in 1875-76 to Rs. 5,350, 1,750 and 1,600 in 1876-77, respectively. Moreover, the poor people earnestly desire departmental collection, and have petitioned the Conservator to that effect wherever he has gone during the year. They say, and truly, that the contractors do not pay them fairly for their collections, and the result is that, at least, one-half the crop is allowed to rot and burn on the ground. This latter the Conservator has frequently observed, and he feels that departmental collection will bring with it greater contentment amongst the poor people living in the forests, and that an additional yearly net revenue of, at least, Rs. 5,000 throughout the whole division will result from it.

155. There has been no change in the manner of submitting accounts in this division, neither is any considered advisable, until, at least, the scheme proposed for the Northern Division by Mr. Shuttleworth makes its advantages apparent over the system in force here.

156. The opinion of the Conservator of this division is entirely opposed to the system of separate forest account establishments, and it is not apparent to him why it should be considered objectionable to utilize the splendid and well-organized establishments of the Collectors. If necessary, one or more forest accountants might, as practised in Kanara, be added to these establishments, and this would, it is thought, remove all objection on the part of the Collectors. Some plan of this kind, and it is only what is practised in Kanara, would prevent Forest Officers being tied down to their desks more than they now are, and save the State much money.

157. It is almost incomprehensible why much money and all out-door efficiency should be sacrificed, so that the forest accounts shall be in the hands of the officers of the Department, and be submitted by them to the very hour and day required, when they might with equal punctuality and correctness be sent in from the Collectors' account departments, through the Conservators.

158. In discussing the subject of accounts at the Simla Forest Conference in October last, Mr. Kelner, a gentleman deputed by the Comptroller General in Calcutta, remarked that he considered the Bombay system the best, and held it up as a pattern to the other provinces.

159. During the year a collection of gums of 64 different descriptions was made in accordance with the desire expressed in Government Resolution No. 2477, dated the 29th April 1875, also some 9,612 cocoons of the Tusser silkworm. The former will be specially reported on, and the latter sent to Captain Coussmaker to Poona.

160. The Conservator cannot conclude this report without recording his acknowledgments to the Collectors and other District Officers for their invariable kind co-operation and aid. He would also desire to state that, with the exception of Mr. Betham, in Dharwar, who has not been as attentive to his duties as he might have been, he has every reason to be satisfied with the manner the officers under him have performed their several duties.

161. Mr. Barrett, in Kanara, has already received favourable and special notice in Government Resolution No. 272, dated the 12th January 1876, for the part taken by him in the erection and working of the saw-mills, and in his other duties he has shown like zeal. Mr. E. J. Ebden, C.S., as only expected of him, has with great intelligence and zeal done much useful and important work in the selection and mapping of the forest reserves in Kanara, and so also has Mr. J. L. Laird, Assistant Conservator in Belgaum. Mr. Oliphant, Assistant Conservator of Forests, Belgaum, has also

performed his duties with great care and attention; he attended the Simla Conference in October last as the Conservator's representative, and on his return journey visited and inspected the large Changa-Manga plantation in the Panjab, bringing back with him much useful information.

162. Lastly, the Conservator would desire to state that Mr. Annaji Venkutrao, the Sub-Assistant Conservator in the Kaládgi Districts, has done his duty conscientiously and well.

163. During the year Mr. Barrett, in Kanara, was for approved good service promoted to 1st grade Deputy Conservator, with effect from the 18th July 1874, and Mr. Laird's promotion from 3rd to 2nd grade Assistant Conservator was ante-dated to the 7th October 1872.

164. Mr. Betham, 2nd grade Assistant Conservator in Dharwar, passed his departmental examination before the committee held at Poona in October and November 1875. He was for this purpose absent from his charge from the 17th October to the 23rd November 1875.

165. The health of the establishment and workpeople was not good during the year. Fever and cholera prevailed much everywhere, and in Kanara, Dharwar and Belgaum the forest operations and even the sales were affected in consequence.

166. Of the permanent establishments, 1 Inspector, 1 Kárkun (with his whole family), and 3 Foresters died, and many suffered from fever. Amongst the workpeople there were some fatal cases of cholera, and at one time in Kanara there was rather a panic caused by it. The Sheristadár of the Assistant Conservator of Forests, Dharwar, was also struck down by paralysis, and had to be discharged with the gratuity he was entitled to, *viz.*, Rs. 20.

167. A map of the kind suggested in Government Resolution No. 6226, dated the 4th November 1875, is in hand at the Photo-zincographic Office, Poona, but it is doubtful if it can be submitted with this report. There would appear no reason, however, why it should not follow when ready.

168. The Conservator was under canvas from the 1st April 1875 up to the 1st June, and again from the 1st November to the 31st March 1876. He made Yellápur his head-quarters during the monsoon months, so as to be with and assist Mr. Barrett in the erection and supervision of the saw machinery established in the forests, 4½ miles out from Yellápur. He may say that from the middle of June up to the 15th September he was regular in his attendance at the mills, in turn with Mr. Barrett, from two to three times a week.

169. In April and up to the middle of May he saw the forest operations being conducted in the Supa Taluka, and personally instructed the formation of teak nurseries and the preparation of the ground for planting at Barchi. From there he proceeded to Haliyál and thence on to the saw-mills, where he remained in camp until driven into quarters by the rains. During June, July, August, September, and up to the 8th October, he remained at Yellápur, and on the 9th proceeded to Dharwar, where he saw the Collector, Mr. Robertson, and the plantations of Suptápur and Sulkinkop: also the permanent depôt there. From Dharwar he returned to the saw-mills and back to Haliyál, where he wrote his saw-mill report, and then on the 18th left for the Kaládgi Districts.

On the 21st he was encamped at Konnur, on the Malprabha ver dividing Dharwar from Kaládgi and from there, having been ned by his Sub-Assistant, Mr. Annaji Venkutrao, he proceeded ? Mometgeri, Badámi, Haunsnur, and Sirur to select and classify) forest reserve tracts in that direction. On the 3rd December was at Bágalkot, and again from there continued his reserve ections. From Bágalkot he marched *viâ* Balkindi and Kolhár the Krishsna River, to Mamdápur, where he inspected the sowings, rseries, and planting of the year done by the Sub-Assistant Con-rvator, and from thence on to Semikerri, where he continued his serve selections *viâ* Kerur and on to Goankop. Here on the 13th) left his Sub-Assistant and proceeded *viâ* Nargund to Dharwar. Whilst at Nargund he inspected a number of babul trees that had been marked on the kuran for removal. On the 17th he arrived at Haliyál, and found Mr. Barrett struggling with bad fever and rheumatism on him to keep up the timber sales. The Conservator at once sent Mr. Barrett into Dharwar for medical treatment, and took up the sales himself. Having completed them, on the 23rd he left for Tegur, in the Dharwar District. From Tegur he proceeded *viâ* Mugud Bunder, Haliyál, Sâmbrâni, and Bhagwutti to Yellápur, and thence on *viâ* Manchikeri and Sonda to Sirsi, where, at special desire, he waited on His Excellency the Commander-in-Chief, Sir Charles Staveley, K.C.B.; with His Excellency he proceeded *viâ* Sonda, Bairdesgaum, Yekkambi, and Pala to Mundgod, where, with permission, the Conservator took leave and proceeded back to Yellápur *viâ* Mainâli to meet, at special request, the Acting Revenue Commissioner, S. D., Mr. Oliphant. From Yellápur the Conservator accompanied the Revenue Commissioner by regular marches to Karwar, where he arrived on the 7th February. Whilst at Karwar the Conservator saw the Collector, Mr. Macdonald, frequently, and showed Mr. Oliphant the sea-beach plantation of casuarinas, and the depôt of Kodibág, at about

which time some magnificent teak timber was being taken charge of by the Superintendent.

Having examined the depôt books the Conservator then proceeded up the river to Kadra, and, after having inspected the plantations there, went up the ghâts by Unshi, and from there no to Khánápur, where he met the Assistant Conservator of Forests and Mr. J. L. Laird, then engaged in surveying some reserves in the neighbourhood. The Khánápur timber depôt was examined, also the naka there, and after this the Conservator proceeded on to Belgaum, which he reached on the 28th February. From Belgaum, taking the Assistant Conservator with him, the Conservator went on to Deshnur Gad and inspected the plantations and the pillars put up to demarcate the reserves there. Here the Conservator had the pleasure of meeting Mr. Grey, the Collecto who was encamped close at hand. From Belgaum, on the 6 March, the Conservator moved camp to Jamboti, where he w again joined by the Assistant Conservator, and together they p ceeded along the ghâts to Seroli and from thence on to Hemurg where the kumri grounds were given out the year previous Mr. Stewart, the First Assistant Collector. The people along h expressed over and over great contentment with the arrangeme made by the orders of Government to give them a greater area land to kumri. They only thought the assessment somewh high, but were content to pay it. The Conservator remarked h that there were several acres of the land given out over, which would have been of no use to sow seed, owing to there bein surface rock with little or no soil on it. This, no doubt, made the assessment appear high, for the bad portion had to be paid for as well as the good. From Hemurgeh the Conservator moved camp to Tinai, and was pitched there on the 31st March 1876.

W. PEYTON, Major,
Conservator of Forsts, S. D.

No. 2901 OF 1876.

REVENUE DEPARTMENT.

Poona, 31*st August* 1876.

The Revenue Commissioner, S. D., remarks that this report, received to-day, is described as most urgent: he, therefore, considers its objects will be better served by speedy transmission, with even a very few observations, than if it be detained or review in detail.

2. Though the gross receipts of the year fall short of the imate, and the actual expenditure is in excess of the estimate, ch items compare favourably with those of the preceding ar 1874-75, and the excess of receipts over expenditure is . 2,25,951 against, in 1874-75, Rs. 1,93,794, showing a financial provement of Rs. 31,977.

3. The price of timber as the principal article of produce s not been as high as a trading department like that of Forest nservancy would desire, but deficiency in this respect is made to the State and the public by cheapness in one of the most useful elements of material construction.

4. The operations of the saw-mills appear to be very satisfactory, and to justify the Conservator's anticipation of the benefits they would secure.

5. The Revenue Commissioner has much pleasure in inviting attention to the remarks, in paras. 153 and 154, regarding the departmental management of the myrobalan or "Hirda" farms in the forest tracts under the control of the Conservator of Forests S. D. The change from contracts to employment of the labouring classes direct has produced a fair income, actually in excess of recent contracts; and Major Peyton has recognized, in a manner which shows the interest he takes in the humble inhabitants of his magnificent forest range, the contentment with which they have accepted the change. It will go far to make forestry popular, and to remove the charge of hardship which interference with the natural products of these wild regions raises against the Department, if such sedulous attention to the interests of the people be always evinced and consistently maintained.

6. Government will, no doubt, be pleased to observe the high terms in which the Conservator is able, with qualification in one case only, to speak of the services of the officers employed under him during the year.

W. H. HAVELOCK,
Revenue Commissioner, S. D.

Statements.

STATEMENT

COMPARATIVE STATEMENT of RECEIPTS *and* EXPENDITURE

Years 1874-75

Collectorates.	Receipts.						Expen					
							Establishment.					
	1874-75.			1875-76			1874-75.			1875-76.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Northern Division.												
Tanna	1,11,715	3	2	1,24,604	6	0	27,661	11	9	25,047	6	5
Kolába ..	66,184	5	3	36,342	5	9	14,372	11	3	12,467	10	5
Ratnagiri	3,515	9	2	2,306	10	5	1,565	3	5	1,988	9	0
Khandesh ...	46,283	10	3	57,386	14	8	9,962	7	10	10,363	10	7
Násik . ..	13,188	0	6	17,989	2	8	11,309	10	4	12,167	13	7
Ahmednagar	17,786	8	2	14,606	2	9	6,181	13	3	6,590	15	7
Poona	57,180	10	1	43,185	2	2	16,799	1	2	17.970	7	7
Satara	39,634	9	10	35,672	7	10	9,783	14	3	10,169	10	4
Sholápur...	3,576	1	7	4,040	6	10	84	15	3	138	15	6
Surat	1,14,222	10	8	1,00,836	1	2	19,243	7	5	18,139	8	9
Kaira (Panch Máháls) . .	3,792	3	2	11,830	6	7	6,315	9	3	5,429	1	0
Ahmedabad	190	12	0	114	5	3				....		
Broach				107	13	6				...		
Direction .. .	.						20,187	8	2	21,214	12	1
Southern Division.												
Kanara	3,57,236	0	5	3,88,825	2	10	37,049	3	2	42,731	12	7
Dharwar	54,846	15	2	42,998	3	1	10,693	11	11	10,535	2	11
Belgaum	75,893	2	0	81,693	11	4	19,451	0	8	19,861	9	5
Kaládgi	1,456	3	7	3,550	10	4	3,779	8	11	4,388	15	11
Direction							18,450	7	6	18,414	3	3
Total	9,66,702	9	0	9,66,090	1	2	2,32,892	1	6	2,37,612	4	11

No. 1.

of the FOREST DEPARTMENT, *Northern and Southern Divisions, for the and* 1875-76.

DITURE				Profit.	Loss.
Conservancy and Working.		Total.			
1874-75.	1875-76.	1874-75.	1875-76.	1875-76.	1875-76.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
68,469 3 10	38,961 7 0	96,130 15 7	64,008 13 5	60,595 8 7	.....
28,069 3 0	40,353 5 3	42,441 14 3	52,820 15 8	.....	16,478 9 11
707 2 4	4,212 8 10	2,272 5 9	6,201 1 10	.....	3,894 7 5
10,043 1 8	14,481 9 9	20,005 9 6	24,845 4 4	32,541 10 4	.....
6,614 4 2	7,826 13 6	17,923 14 6	19,994 11 1	.....	2,005 8 5
6,681 2 6	2,319 3 2	12,862 15 9	8,910 2 9	5,696 0 0	.....
13,500 12 7	12,560 5 4	30,299 13 9	30,530 12 11	12,654 5 3	.....
1,563 0 10	4,997 2 3	11,346 15 1	15,166 12 7	20,505 11 3	.....
1,667 9 0	1,123 10 9	1,752 8 3	1,262 10 3	2,777 12 7	.....
40,627 7 3	27,197 13 1	59,870 14 8	45,329 5 10	55,506 11 4	.....
7,986 12 1	6,671 5 4	14,302 5 4	12,100 6 4	.....	269 15 9
.....	.....	.....	...	114 5 3	.....
.....	.....	...	...	107 13 6	...
.....	.....	20,187 8 2	21,214 12 1	.....	21,214 12 1
1,52,074 4 10	1,51,773 0 9	1,90,023 8 0	1,94,504 13 4	1,94,320 5 6	.....
23,471 9 7	21,010 10 5	34,165 5 6	31,545 13 4	11,452 5 9	.....
28,918 2 11	20,535 12 0	48,369 3 7	40,397 5 5	41,296 5 11	.....
670 6 0	1,865 3 3	4,449 14 11	6,254 3 2	..	2,703 8 10
.	.	18,450 7 6	18,414 3 3	.....	18,414 3 3
3,91,964 2 7	3,55,889 14 8	6,24,856 4 1	5,93,502 3 7	4,37,568 15 3	64,981 1 8
			Deduct Loss	64,981 1 8	
			Net Revenue	3,72,587 13 7	

STATEMENT No II.

STATEMENT exhibiting Increase and Decrease of the Value of Stock on hand at the end of the Year 1875-76 *compared with that at the beginning of the same year.*

Collectorates	Value of Stock on hand on 1st April 1875	Value of Stock on hand on 31st March 1876.	Increase	Decrease
	Rs a. p	Rs a p	Rs a p.	Rs a. p.
Tanna .	21,419 0 0	14,869 15 8		6,549 0 4
Kolába	9,141 10 0	15,402 0 0	6,260 6 0	
Ratnágiri ...	.			
Khandesh	2,918 0 0	3,548 0 0	630 0 0	
Násik ..	3,100 0 0	5,471 0 0	2,371 0 0	
Ahmednagar ...	242 0 0			242 0 0
Poona	255 0 0	233 15 0		21 1 0
Satara .	3,423 0 0	3,689 0 0	266 0 0	
Sholápur	25 0 0			25 0 0
Surat (Guzerat Circle)...				...
Kaira (Panch Mahals) ..	8,556 0 0	7,747 0 0		809 0 0
Kanara	2,31,154 0 0	1,30,448 0 0		1,00,706 0 0
Dharwar .. .	7,432 0 0	10,539 0 0	3,107 0 0	
Belgaum	1,458 0 0	2,360 0 0	902 0 0	
Kaládgi ...	126 0 0	104 0 0		22 0 0
Total	2,89,249 10 0	1,94,411 14 8	13,536 6 0	1,08,374 1 4

Statement No. III.

STATEMENT

STOCK ACCOUNT of Quantities and Value of Timber and
Year 1875-76, *with Receipts*

Collectorate	Class of Material.	Stock on hand on the 1st April 1875.					
		Measurement					Estimated Value
		Number of Logs.	Candies.	Quarters.	Gaj	Tasus	
							Rs
Tanna	Teak pieces	4,732					3,097
	Teak rafters	6,143					5,192
	Blackwood logs	1					4
	Do. rafters	4					1
	Other logs ...	67					29
	Do rafters	652					282
	Bambus	15,410					231
	Firewood		9 876				3 385
	Deadwood ..		8,481				9,198
	Charcoal						
	Bark (ain)						
		27,009	18,357				21,419
Kolába	Teak rafters						
	Teak pieces						
	Junglewood						
	Firewood		5,394	Mds 26			9,141
			5,394	26			9,141
Ratnágiri	Teak sotas						
	Teak rafters (of all classes)						
					...	...	
Khandesh	Teak sotas	200					400
	Teak rafters	6,370					2 518
	Jungle timber ..						
	Firewood						
	Bambus						
		6,570					2,918
Násik	Teak rafters	16,435					3 100
	Firewood						
		16,435					3,100

No. III.

other Produce on hand at the commencement and the close of the and Issues during the Year.

Received during the Year 1875-76.						Total.					
	Measurement.						Measurement.				
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Estimated Value.	Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Estimated Value.
					Rs.						Rs.
7,678	...	...	..	...	5,612	12,410	...	...	..	...	8,709
48,358	...	...	...	...	39,317	54,501	...	...	...	..	44,509
...	...	...	...	...	...	1	...	...	...	...	4
...	...	...	...	...	...	4	...	...	...	...	1
2,956	...	...	...	...	1,581	3,023	...	..	...	...	1,610
5,688	...	...	...	...	1,740	6,340	...	...	...	...	2,022
1,250,800	...	...	...	...	13,676	1,266,210	...	...	...	...	13,907
...	33,523	...	...	...	44,071	...	43,399	...	...	...	47,456
...	...	...	...	...	.	...	8,481	...	...	...	9,198
...	227	...	...	..	1,135	...	227	...	...	.	1,135
...	55	...	...	...	230	...	55	...	...	...	230
1,315,480	33,805	..	...	...	107,362	1,342,489	52,162	...	...	...	1,28,781
31,611	...	...	...	...	17,738	31,611	...	...	...	.	17,738
...	...	...	...	...	...	...	...	...	...	..	.. ..
...	...	...	...	...	..	...	...	...	...	...	.....
								Feet.			
...	24,027	...	...	...	18,247	...	29,421	26	...	..	27,388
31,611	24,027	...	...	...	35,985	31,611	29,421	26	...	..	45,126
216	..	...	...	...	250	216	...	...	...	...	250
8,939	..	...	...	..	1,220	8,939	...	...	...	...	1,220
9,155	...	...	...	...	1,470	9,155	.		...	...	1,470
..	...	...	...	...	...	200	...	...	...	.	400
23,165	...	...	...	...	9,098	29,535	...	...	...	...	11,616
...	...	...	...	...	..	...	...	...	..	...	.....
..	...	...	..	...	...	...	...	...	...	...	.....
...	...	...	...	...	...	...	...	...	..	...	.....
23,165	...	...	...	...	9,098	29,735	..	...	...	...	12,016
39,577	...	...	...	...	11,035	56,012			.	...	14,135
...	...	...	..	...	..	...		...	...	...	.. ..
39,577	...	..	...	.	11,035	56,012	...	.	..	...	14,135

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Sold during the Year 1875-76. Measurement. Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Actual Amount realized by Sale. Rs. a. p.
Tanna	Teak pieces	12,344	...	...	...	.	8,684 8 7
	Teak rafters	46,255	.	...	...	.	36,988 11 5
	Blackwood logs	1	...	...	...	..	4 0 0
	Do. rafters	4	...	...	...	...	1 0 0
	Other logs	2,717	...	..	...	...	1,519 13 0
	Do. rafters	5,974	...	..	...		1,866 0 4
	Bambus	1,241,390	..	.	...	...	13,749 15 11
	Firewood	..	36,374	.	...	...	40,239 0 0
	Deadwood	...	8,481	...	...	..	9,198 0 0
	Charcoal	...	55	.	...	...	229 13 0
	Bark (ain)	...	227	...	..	...	1,135 0 0
		1,308,685	45,137	..	..	.	113,615 14 3
Kolába	Teak rafters	31,007	.	.	..	.	17,436 5 0
	Teak pieces	..			...	..	....
	Junglewood	...	...	.	...	..	.....
	Firewood	...	13,221	Feet 26	...	.	15,287 13 4
		31,007	13,221	Feet 26	..	...	32,724 2 4
Ratnágiri	Teak sotas	216	...	...	..		250 14 1
	Teak rafters (of all classes)	8,929	...	...	...	...	1,219 12 11
		9,155	...	...	...		1,470 11 0
Khandesh	Teak sotas	200	...	...	...	..	400 8 0
	Do. rafters	21,566	...	...	...	...	7,295 4 8
	Jungle timber		...	...	...	...	....
	Firewood	...	...	...	...	..	... ..
	Bambus	...	...	..	...	...	.....
		21,766	...	...	.	..	7,695 12 8
Násik	Teak rafters	47,465		.	.	.	8,664 9 10
	Firewood	...		...	...	..	.....
		47,465	.	.	..	..	8,664 9 10

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Stock on hand on the 31st March 1876.						
Measurement.					Estimated Value.	Total Estimated Value of Stock in each Collectorate.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		
					Rs.	Rs.
66	...	...	...	...	25	
8,246	...	...	...	...	7,520	
.....	...	...	...	...	.....	
.....	...	...	...	...	.....	
306	...	...	...	...	90	
366	..	...	..	...	156	
24,820	.	..	...	...	157	
.....	7,025	..	...	...	7,217	
.....	..	..	...	...	.....	
.....	...	...	...	...	.....	
.....	...	...	...	...	.....	
33,804	7,025	...	...	...	15,165	15,165
604	...	...	...	...	302	
.....	...	...	...	...	.....	
.....	...	...	...	...	.....	
.....	16,200	..	...	.	12,100	
604	16,200	...	...	...	12,402	12,402
.....	...	...		...	.....	
.....	...	...	..	...	.....	
.....	...	...	...	..	.....	Nil.
.....	.	...	...	...	.....	
7,969	...	...	...	..	4,321	
.....	..	...	...	...	.....	
.....	.	..	...	..	.....	
.		...	...	...	.	
7,969	...	...	...	.	4,321	4,321
8,447	.	...	.	...	5,471	
.....	..	...	..	.	.....	
8,447	...	...	.	..	5,471	5,471
						37,359

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Stock on hand on the 1st April 1875. Measurement. Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Estimated Value.
							Rs.
Ahmednagar ...	Teak rafters	...	...	...	...	...	...
	Teak pieces	...	...	...	...	...	...
	Babul logs	...	...	...	...	...	...
	Junglewood logs	.	...	...	...	...	...
	Do. rafters	3,300	...	...	...	...	220
	Do. planks	...	...	...	...	...	...
	Firewood	...	110	...	...	...	22
	Bambus...	...	...	...	..	...	...
	Karvi (head-loads)	...	...	...	...	...	...
	Hokal (do.)	..	...	...	...	...	...
		3,300	110	...	...	...	242
Poona	Teak rafters	1,400	...	...	...	...	255
	Babul	...	...	...	...	...	..
	Jambulwood	...	...	...	...	...	...
	Junglewood	...	...	...	...	...	...
		1,400	...	...	...	...	255
Sholápur ...	Bore and babul	...	10	Mds. 5	...	...	25
		...	10	Mds. 5	...	...	25
The Dangs ...	Teak, green	...	...	...	...	.	...
	Teak, dead	. .	..	...	...	...	...
	Teak sotas	...	...	...	...	...	...
	Teak rafters	...	...	...	...	...	. .
	Khair	...	...	...	...	...	
	Blackwood	...	...	...	..		.
	Tannas	...	...	...	...	...	.
	Halladwan	...	...	..	..		. .
	Sadra	..	...	...	.	.	.
	Junglewood	...	.	..	..	..	.
	Bea	..	...		...	...	...
	Kanti	...	...	.	..	..	.
	Bambus	.	. .	...	...	...	...
			.	...	...	..	. .

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Received during the Year 1875-76.						Total.					
	Measurement.						Measurement.				
Number Logs.	Candies.	Quarters.	Gaj.	Tasus.	Estimated Value.	Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Estimated Value.
					Rs.						Rs.
15,195	...	...	...	..	3,371	15,195	...	...	...	...	3,371
10,157	...	...	...	...	225	10,157	...	...	...	...	225
...	...	...	...	..	...	...	...	...	...	...	...
...	...	...	...	...	..	..	...	...	...	...	...
6,133	...	..	..	...	679	9,433	...	...	...	..	899
...	.	..	...	...	...	..	...	...	...	...	...
.	1,486	...	...	...	988	...	1,596	...	...	...	1,010
855	...	...	...	...	14	855	...	...	...	...	14
...	40	...	...	...	5	...	40	...	...	...	5
...	112	...	...	...	7	...	112	...	...	...	7
32,340	1,638	..	...	...	5,289	35,640	1,748	...	...	...	5,531
70,633	...	...	...	...	18,546	72,033	...	..	...	...	18,801
...	8,305	...	...	...	10,755	...	8,305	..	...	...	10,755
..	...	..	...	...	...	...	...	...	...	..	...
3,591	...	...	...	...	351	3,591	...	...	...	...	351
74,224	8,305	...	...	...	29,652	75,624	8,305	...	...	...	29,907
								Mds.			
...	438	...	...	...	1,816	..	448	5	...	...	1,841
								Mds.			
...	438	...	...	...	1,816	...	448	5	...	...	1,841
		Feet.						Feet.			
3,843	4,486	12	...	...	36,155	3,843	4,486	12	...	...	36,155
25,933	4,279	10	..	.	12,509	25,933	4,279	10	...	...	12,509
688	..	...	..	...	939	688	...	...	...	...	939
..	. .	..	...	...	...	...	...	...	...	...	..
143	129	7	...	...	1,208	143	129	7	...	...	1,208
66	128	3		..	901	66	128	3	...	...	901
128	46	8	. .	...	266	128	46	8	...	...	266
469	1,195	1	.	.	4,485	469	1,195	1	...	..	4,485
316	650	2	..	...	987	316	650	2	...	...	987
111	119	2	...		119	111	119	2	...		119
137	372	4	...	.	569	137	372	4	...	...	569
32	34	4	...	...	57	32	34	4	...		57
366,049	.	..	.	. .	3,360	366,049	.	...	...	...	3,360
397,915	11,438	53	.	.	61,555	3,97,915	11,438	53	...	.	61,555

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Sold during the Year 1875-76. Measurement. Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Actual Amount realized by Sale. Rs. a. p.
Ahmednagar ...	Teak rafters .. .	15,195	..	...	...	...	3,371 2 3
	Teak pieces	10,157	..	...	...	...	225 0 3
	Babul logs	...	...	...	...	.	.....
	Junglewood logs	...	...	...	...	...	.....
	Do. rafters	9,433	..	...	.	..	899 11 0
	Do. planks . .	...	...	...	...	...	.....
	Firewood	...	1,596	...	...	..	1,009 7 9
	Bambus	855	.	...	...	.	14 4 0
	Karvi (head-loads)	...	40	...	.	..	5 0 0
	Hekal (head-loads)	..	112	...	.	..	7 0 0
		35,640	1,748	.	.	.	5,531 9 3
Poona	Teak rafters	72,033	...	...	...	...	18,780 11 3
	Babul	.	8,305	...	.	..	10,755 12 1
	Jambulwood	...	.	..	...	.	.....
	Junglewood	3,591	.	...	...	.	351 14 0
		75,624	8,305	...	. .		29,888 5 4
Sholápur...	Bore and babul	...	448	..	...		1,841 0 1
		.	448	...			1,841 0 1
				Feet			
The Dangs	Teak, green	3,843	4,486	12	...	...	36,155 15 0
	Do. dead	25,933	4,279	10	...	. .	12,509 3 11
	Do. sotas	688	...	...	...		939 2 7
	Do. rafters	...	...	...	...		.....
	Khair.	143	129	7	...	...	1,208 1 2
	Blackwood	66	128	3	...	...	901 9 8
	Tannas	128	46	8	...	...	266 12 6
	Halladwan	469	1,195	1	...	.	4,485 12 6
	Sadra.	316	650	2	..	..	987 9 0
	Junglewood	111	119	2	...	.	119 2 10
	Bea	137	372	4	.	...	569 11 5
	Kanti	32	34	4	. .		57 7 10
	Bambus	366,049	...	...	...	.	3,660 7 10
		397,915	11,438	53	...		61,555 0 3

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Stock on hand on the 31st March 1876.						
Measurement.					Estimated Value.	Total Estimated Value of Stock in each Collectorate.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		
					Rs.	Rs.
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	Nil.
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	Nil.
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
...	.....	.....	.....	.....	.....	Nil.
	.....	.....	.....	.....	.....	
..	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
...	.....	.....	.....	.....	.....	
...	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
..	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.....	
..	.....	.....	.....	.....	.....	
..	.....	.....	.....	.....	.....	
...	.....	.....	.....	.....	.....	Nil.

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Stock on hand on the 1st April 1875.					
		Measurement.					Estimated Value.
		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
							Rs.
Surat (Guzerat Circle)	Teak pieces	...	...	...	..	...	...
	Do. rafters	...	...	...	...	...	
	Khair	...	...	...	...	...	.
	Blackwood	...	...	...	...	...	...
	Halladwan	...	...	...	...	...	.
	Sadra	...	...	...	...	...	..
	Firewood	...	...	...	...	...	...
	Bambus...	...	...	...	...	...	...
	Charcoal	..	...	...	...	...	..
		...	...	...	...	...	...
Panch Máhâls (Northern Circle.)	Teak sotas	429	.	...	...	..	1,600
	Do. pieces (wahs)	3,44,960	.		...	..	6,891
	Firewood	..	39	..	...	...	65
		3,45,389	39	..	.	...	8,556
Satara... ...	Teak rafters	...	.	..	...	...	...
	Sandalwood	...	..	.	..		...
	Junglewood	1,644	.	.	..	...	3,423
	Firewood	...	.	..	...	...	...
		1,644	...	...			3,423

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Received during the Year 1875-76.						Total.					
Measurement.					Estimated Value.	Measurement.					Estimated Value.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
					Rs.						Rs.
85,316	...	.	...	...	10,978	85,316	...	...	...	...	10,978
530	...	..	...	..	536	530	...	...	...	...	536
165	...	...	..	...	892	165	...	..	...	...	892
25	...	..	...	...	197	25	...	..	...	...	197
.	Carts 5	...	...	...	12	...	Carts 5	...	...	...	12
...	do. 7	...	...	...	17	...	7	...	...	...	17
	do. 4,673	...	..	...	1,874	...	4,673	...	...	...	1,874
142	.	...	..	...	668	142	...	...	...	...	668
...	Carts 100	...	...	...	100	...	100	...	...	...	100
86,178	4,785	...	..	...	15,274	86,178	4,785	...	...	...	15,274
...	...	..	...	...	...	429	...	...	...	...	1,600
324,071	...	...	...	...	15,562	669,031	...	...	..	...	22,453
..	204	...	...	...	156	.	243	...	...	...	221
324,071	204	.	...	...	15,718	669,460	243	...	...	...	24,274
71,112	..	...	...	...	8,455	71,112	...	...	...	..	8,455
..		...	...	...	...	..	...	...	...	...	...
1,465	...	...	...	...	586	3,109	...	...	...	...	4,009
.	2,493	..	...	...	1,718	...	2,493	...	...	...	1,718
72,577	2,493		..		10,759	74,221	2,493	...	..	...	14,182

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Sold during the Year 1875-76.					
		Measurement.					Actual Amount realized by Sale.
		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
							Rs. a p.
Surat (Guzerat Circle)	Teak pieces	85,316	...	...	...	...	10,977 11 1
	Teak rafters	530	...	...	...	...	535 13 6
	Khair...	165	...	...	...	...	892 0 0
	Blackwood	25	...	...	...	...	196 14 0
	Halladwan	...	Carts. 5	...	...	..	12 8 0
	Sadra	...	7	..	...		17 8 0
	Firewood	...	4,673	..	...		1,874 1 10
	Bambus	142	.		...	..	668 0 0
	Charcoal	.	100	...	..	...	100 0 0
		86,178	4,785	...	...	..	15,274 8 5
Panch Máhúls (Northern Circle.)	Teak sotas	429	...	...	...	...	1,772 5 0
	Teak pieces (wahs) ...	3,03,055	...	...	..	...	8,053 9 0
	Firewood	...	243	...	...	...	253 0 0
		3,03,484	243	...	..	...	10,078 14 0
Satara... ...	Teak rafters	43,283	...	...	...	...	5,917 9 0
	Sandalwood	...	...		...	...	. .
	Junglewood	1,141	. .	...	.	...	340 0 0
	Firewood	...	977	...	...	.	949 4 0
		44,424	977	...	...	...	7,206 13 0

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Stock on Hand on the 31st March 1876.						
Measurement.					Estimated Value.	Total Estimated Value of Stock in each Collectorate.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		
					Rs.	Rs. 37,359
.....	.....	...	...	...	.....	
.....	.....	...	...	...	.....	
...	.....	..	...	...	.....	
.....	.....	...	..	...	.....	
.....	....	..	...	...	.....	
.....	.....	...	...	...	.....	
.....	.....	..	...	...	.....	
.....	.....	...	..	...	.....	
.....	... ..	..	..	...	.....	
.....	.....	..	...	...	.....	Nil.
.....	... ..	...	...	...	.....	
3,65,976	.....	...	...	...	14,400	
.....	.....	...	...	...	.....	
3,65,976	.....	...	...	...	14,400	14,400
27,829	.....	...	...	...	2,538	The jungle-wood has been sold for Rs. 2,858 less than was anticipated.
.....	.....	...	...	...	.....	
1,965	.....	...	...	...	811	
1,516	.....	...	...	...	769	
31,310	.....	...	...	...	4,118	4,118
						55,877

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate	Class of Material	Stock on hand on the 1st April 1875.					
		Measurement					Estimated Value.
		Number of Logs	Candies.	Quarters.	Gaj	Tasus	
							Rs
Kanara	Teakwood	7,111	8,380		2		1,42,460
	Blackwood	162	184	3	4	18	2,208
	Junglewood	3,996	6,440	1	1	19	64,440
	Cedarwood	1	5	1	1	4	35
	Rafters	1,935					3,303
	Teakwood, inferior	457				...	914
	Junglewood do.	315					2,030
	Scantlings			...			
	Slabs		...	...	...	...	
	Do			...	...		
	Teakwood pieces						
	Firewood	Tons 220	Mds.	Lbs 37	...		1,100
	Do	I. Mds. 55,481½					6,068
	Do	Tons 510	Foot	Inches			2,550
	Do.	I. Mds 11,392					1,246
	Do	Tons 751	Foot 33	Inches 7½	...		3,760
	Charcoal	Coombs 14	Mds 2	Lbs 60	..		140
	Do	Coombs	Lbs.		...	...	
	Sandalwood	Candies	Mds	Lbs.	Tolas		
		NOTE.—Out of the total quantity of teak, black- the year 1875-76 there was on the 31st March Kanara Saw Mills					
Dharwar	Teak rafters	630		...			1,023
	Do posts	94					164
	Muttee rafters	199		..			298
	Do posts	11		..			27
	Blackwood rafters	1		...			1
	Do posts			...	..		
	Sandalwood pieces	16		..			8

No. III.—*continued.*

of Timber and other Produce, &c.—continued.

Received during the Year 1875 76.						Total					
Measurement					Estimated Value.	Measurement.					Estimated Value.
Number of Logs.	Candies.	Quarters	Gaj	Tasus		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
					Rs.						Rs.
5,219	9,980		2	19	1,69 660	12,330	18,360		4	19	3,12,120
285	236		2	2	2,832	447	421		2		5,040
3,063	3,836		2	17	30,688	7,059	10,276	1	4	16	95,128
				.	...	1	5	1	1	4	35
23,296					17,373	25,231					20,676
				...		457					914
	.					315	...				2,930
5,099					2,844	5,099					2,844
88					104	88			.		104
		12			4		3	12			4
62	3				2,491	62			...		2,491
Tons.	Maunds	Lbs.			.	Tons	Maunds.	Lbs			
						220		37		..	1,100
I. Mds						I Mds.					
467					51	55,948½					6,119
Tons	Feet.	Inches				Tons	Feet	Inches			
364	48	9			1,094	874	48	9	..		3,644
I Mds.						I. Mds					
12,526½		...			1,370	23,918½				.	2,616
Tons	Feet	Inches				Tons.	Feet	Inches			
313	81				1,565	1,065	18	7½	..	...	5,325
	Coombs	Mds.	Lbs.			Coombs	Maunds.	Lbs	.		
			.			14	2	60	...		140
Coombs	Lbs.					Coombs	Lbs				
76	150				840	76	150				840
	Candies.	Mds	Lbs	Tolas.			Candies.	Mds.	Lbs	Tls	
	47	13	14	11	5,320		47	13	14	11	5,320
wood and junglewood shown above as sold during 1876 balance of 22,507 61½ saw timber at the											
4,813					7,821	5,443					8,844
1,133					1,982	1,227				.	2,146
1,104					1,656	1,303	.		...	.	1,954
116					290	127	...			.	317
18		.			12	19	...		...	...	12
18					27	18					27
224					112	240	...				120

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Materials.	Sold during the Year 1875-76. Measurement. Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	Actual Amount realized by Sale. Rs.	a.	p
Kanara	Teakwood	10,291	14,975	1	4	10	2,31,458	1	6
	Blackwood	180	174	2	1	13	1,858	1	4
	Junglewood	5,027	7,779	...	..	18	70,962	3	1
	Cedarwood	...	...	...	...	...	...		
	Rafters	11,870	...	...	...	...	11,064	1	3
	Teakwood, inferior	421	...	...	...	..	486	0	0
	Junglewood do.	42	...	...	...	...	368	10	4
	Scantlings	1,445	...	...	...	...	1,183	4	8
	Slabs	88	..	...	...	...	104	12	0
	Do.	...	3	12	...	...	3	9	7
	Teakwood pieces	60	..	...	...	...	2,374	13	7
		Tons.	Mds.	Lbs.					
	Firewood	.	...	.	...	...	..	..	
		I. Mds.							
	Do.	19,245	...	...	...	...	2,786	15	5
		Tons.	Feet.	Inch					
	Do.	839	32	6	..	..	2,437	13	6
		I. Mds.							
	Do.	22,413½	...	...	...	..	2,681	3	11
		Tons.	Feet.	Inch					
	Do.	528	9	10½	...	...	3,009	4	2
		Coombs.	Mds.	Lbs.					
	Charcoal	...	...	...	...	...		.	
		Coombs.	Lbs.						
	Do.	36	150	...	...	.	398	1	0
			Candies	Mds	Lbs.	Tols			
	Sandalwood	..	47	13	14	11	5,320	13	1
Dharwar	Teak rafters	4,165	..	..	.	.	5,545	3	0
	Do. posts	693	.	.	...		1,667	6	0
	Muttee rafters	828	.	..	...	..	519	0	0
	Do. posts	68			.	...	110	10	0
	Blackwood rafters	17			...		10	9	0
	Do. posts	10		...	...		9	4	0
	Sandalwood pieces	233	..	...	...	.	60	4	0

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Stock on Hand on the 31st March 1876.						
Measurement.					Estimated Value.	Total Estimated Value of Stock in each Collectorate.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		
					Rs.	Rs.
						55,877
2,039	3,384	3	...	9	57,528	
267	246	2	...	7	2,958	
2,032	2,497	1	3	18	19,978	
1	5	1	1	4	35	
13,361	...	...	.	...	10,295	
36	...	...	..	...	28	
273	...	...	...	...	2,253	
3,654	..	..	...	...	1,660	
...	..	..	...	...	...	
...	..	...	..	...		
2	...	...	..	...	120	
Tons.	Maunds.	Lbs.				
220	...	37	...	...	1,100	
I. Maunds.						
36,703½	...	...	...	...	4,015	
Tons.	Feet.	Inches.				
35	16	3	...	...	106	
I. Maunds.						
1,505	.	...	...	...	165	
Tons.	Feet.	Inches,				
537	8	9	..	...	2,685	
Coombs.	Maunds.	Lbs.				
14	2	60		...	140	
Coombs.	lbs.					
40	.	..	..	.	440	
Candies.	Maunds.	Lbs.	Tolas.			
..	...	...	...		.	
						1,03,506
Add estimated value of 22,507 cubic feet of sawn timber at the mills ...						26,942
						1,86,325
1,278	.	...	...		2,076	
534	.	...			934	
475	...	...	...		712	
59	.	...	...	.	147	
2	...	..	...		1	
8	...	...	...		12	
7	..	...	...		3	

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material.	Stock on Hand on the 1st April 1875.					
		Measurement.					Estimated Value.
		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
							Rs.
Dharwar ..	Junglewood	...	381	..	..	...	1,777
	Firewood	...	863	...	...	...	2,909
	Charcoal	Phuras. 1,217	...	...	...	...	1,217
	Teak trees	...	...	...	..	...	...
	Muttee trees	1	...	...	...	...	8
	Junglewood rafters	.	...	...	...	...	...
	Depôt sweepings	...	...	...	...	...	...
Belgaum ..	Teakwood	22	68	3	2	3	1,035
	Do. poles	...	..	...	...	...	...
	Do. logs, inferior ...	...	...	...	...	...	...
	Do. poles do. .	96	...	...	...	...	30
	Blackwood logs	3	8	2	1	14	102
	Do. poles	...	...	...	...	...	..
	Do. logs, inferior .	...	...	...	...	...	...
	Do. poles do. ...	30	...	...	...	...	5
	Junglewood logs	9	26	1	3	13	286
	Do. poles	...	...	...	..	...	.
	Do. logs, inferior ...	...	...	...	...	..	...
	Do. poles do.	...	...	...	...	...	...
Kaládgi ...	Junties	1,211	...	...	...	.	126
	Wood fit for agricultural purposes (cart-loads)	...	...	...	...		...
	Firewood (cart-loads)	..	...	..	.	..	..

No. III.—*continued*

Timber and other Produce, &c.—continued.

Received during the Year 1875-76.						Total.					
Measurement.					Estimated Value.	Measurement.					Estimated Value.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.	
					Rs.						Rs.
...	680	...	...	...	2,587	...	1,061	...	...	...	4,364
...	1,543	...	...	...	4,465	...	2,406	...	...	...	7,374
...	...	...	...	...	...	Phuras. 1,217	...	...	...	...	1,217
39	...	...	...	...	390	39	...	...	...	...	390
3	...	...	...	...	24	4	...	...	...	...	32
258	...	...	...	...	193	258	...	...	...	...	193
...	...	...	...	...	...	...	...	..	...	...	...
974	1,347	...	4	12	18,872	996	1,416	...	1	15	19,907
8,127	2,259	2	4	14	11,300	8,127	2,259	2	4	14	11,300
804	308	3	1	19	1,854	804	308	3	1	19	1,854
3,832	...	...	...	...	1,916	3,928	...	...	...	...	1,946
48	88	...	1	3	979	51	96	2	2	17	1,081
35	6	2	1	16	21	35	6	2	1	16	21
53	26	...	...	16	142	53	26	...	...	16	142
357	...	...	...	...	60	387	...	...	...	...	65
176	308	3	4	10	3,090	185	335	1	3	3	3,376
5,808	830	2	1	1	2,493	5,808	830	2	1	1	2,493
14	10	1	...	7	55	14	10	1	...	7	55
1,850	...	...	...	...	460	1,850	...	...	...	...	460
1,520	...	...	...	...	158	2,731	...	...	...	...	284
93	...	...	...	...	493	93	..	...	...	...	493
72	..	...	...	.	143	72		...	...	...	143

STATEMENT

STOCK ACCOUNT of Quantities and Value of

Collectorate.	Class of Material	Sold during the Year 1875-76					
		Measurement					Actual Amount realized by Sale.
		Number of Logs	Candies	Quarters	Gaj.	Tasus	
							Rs. a p.
Dharwar	Junglewood		679				2,664 8 0
	Firewood		1,161	2			3,619 3 6
		Phuras					
	Charcoal	134			.		134 0 0
	Teak trees	16					159 12 0
	Muttee trees .	3		.			20 4 0
	Junglewood rafters .	67	.				63 15 0
	Depôt sweepings						15 3 10
Belgaum ...	Teakwood	929	1,286	2	4	17	19,272 1 3
	Do. poles	8,127	2,259	2	4	14	12,864 8 0
	Do. logs, inferior .	804	308	3	1	19	2,280 0 0
	Do poles do.	3,928		.			2,436 8 0
	Blackwood logs	51	96	2	2	17	1,403 0 0
	Do. poles	35	. 6	2	1	16	18 0 0
	Do. logs, inferior	53	26			16	196 0 0
	Do. poles do.	387					102 4 0
	Junglewood logs .	167	300	2	2	...	3,785 10 0
	Do poles .	5,808	830	2	1	1	2,834 8 0
	Do. logs, inferior ..	14	10	1	.	7	74 0 0
	Do poles do.	1,850					789 6 0
Kaládgi ...	Junties	2,310			..		247 0 0
	Wood fit for agricultural purposes (cart loads)	88		.	.		486 4 0
	Firewood (cart-loads)	56	..	..	.		109 6 0

* NOTE—Through some unaccountable blunder the Assistant Conservator of Forests, Dhar- should not have been entered In his accounts he has shown stock to this amount disposed, will be noticed in the next year's report.

No. III.—*continued.*

Timber and other Produce, &c.—continued.

Stock on Hand on the 31st March 1876.						
Measurement.					Estimated Value.	Total estimated Value of Stock in each Collectorate.
Number of Logs.	Candies.	Quarters.	Gaj.	Tasus.		
					Rs.	Rs.
						1,86,325
. .	367	. ...	..	.....	1,572	
. ..	1,225	2	.. ...	.....	3,681	
Phuras.						
1,083	.....	.....	.....	.....	1,083	
23	.....	.....	.....	.....	230	
1	.....	.....	... ..	.....	8	
191	.....	.....	.. ...	.....	80	
.....	.....	.....	.....	.....	.....	* 10,539
67	129	1	1	18	1,940	
.....	.. ...	.....	.....	.....	.....	
... ..	.....	.....	.....	.....	.. ...	
.....	.....	.....	.....	.....	.....	
.....	.. ...	.....	.....	.....	.....	
.....	.....	.....	...	.....	. ..	
.....	.....	.....	.....	.....	.....	
.....	.....	.....	.....	.....	.. ..	
18	34	3	1	3	420	
.....	.....	.....	.....	.....	.	
.....	.....	.....	.....	.....	... .	
.....	.....	.....	.....	.....	...	2,360
421	.....	.....	.....	.....	45	
5	.....	.....	... ..	.....	25	
16	.....	.....	.....	.....	34	104
					Grand Total...	1,99,328

war, has included stock of the value of Rs. 2,190-14-0 in the total amount here shown that and takes credit for it as an outstanding. The material cannot now be divided here, but

STATEMENT No. IV.

STATEMENT exhibiting the Expenditure incurred on account of Timber and other Forest Produce received into Stock during the Year 1875-76.

Collectorates.	Amount, 1875-76.			Remarks.
	Rs.	a.	p.	
Tanna	21,402	1	7	
Kolába	11,331	14	7	
Ratnágiri	597	0	1	
Khandesh	3,817	11	4	
Násik	2,536	10	1	
Ahmednagar	877	3	5	
Poona	3,422	12	11	
Satara	3,738	12	6	
Sholápur	238	2	8	
Surat (Guzerat Circle)... ...	3,809	2	6	
Kaira (Panch Máháls)... ...	4,512	2	3	
Kanara	78,759	5	11	
Dharwar	6,732	3	8	
Belgaum	13,379	15	1	
Kaládgi	114	14	9	
Total...	1,55,270	1	4	

STATEMENT No. V.

STATEMENT showing the unproductive Expenditure on Plantations, Forest Roads and Buildings, Rewards for planting Trees, Dead Stock Articles, &c., incurred during the Year 1875-76.

Collectorates.	Amount.			Remarks.
	Rs.	a.	p.	
Tanna	1,000	3	0	
Kolába	891	1	4	
Ratnágiri	.....			
Khandesh	776	6	0	
Násik	2,216	1	5	
Ahmednagar	1,392	11	6	
Poona	4,207	14	1	
Satara	426	3	3	
Sholápur	1,024	7	7	
Surat (Guzerat Circle)	1,727	15	4	
Kaira (Panch Máháls)	1,897	9	10	
Kanara	36,748	15	8	
Dharwar	2,850	15	5	
Belgaum	3,499	10	5	
Kaládgi	1,721	10	6	
Total .	60,381	13	4	

STATEMENT No. VI.

ABSTRACT showing the Amount realized on account of Timber and Forest Produce Sales during the Year 1875-76 *and on account of Outstandings of previous years with Outstandings on the* 1st *April* 1876.

No.	Collectorates.	Realizations of Timber and Forest Produce Sales during the year 1875-76.			Realizations on account of Outstandings of previous years.			Total of Columns 3 and 4.			Outstandings on the 1st April 1876.			Total of Columns 5 and 6.			Remarks.
1	2	3			4			5			6			7			8
		Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	
1	Tanna	1,16,756	10	4	.....			1,16,756	10	4	.....			1,16,756	10	4	
2	Kolába	35,897	3	9	.....			35,897	3	9	.....			35,897	3	9	
3	Ratnágiri	2,294	8	6	.....			2,294	8	6	.....			2,294	8	6	
4	Khandesh	33,847	10	5	.....			33,847	10	5	.....			33,847	10	5	
5	Násik	14,889	2	8	3,100	0	0	17,989	2	8	5,471	0	0	23,460	2	8	
6	Ahmednagar	14,602	13	11	3	4	10	14,606	2	9	194	8	0	14,800	10	9	
7	Poona	42,765	6	10	422	15	0	43,188	5	10	375	6	1	43,563	11	11	
8	Satara	40,315	0	3	.....			40,315	0	3	.....			40,315	0	3	
9	Sholápur	4,025	12	10	.....			4,025	12	10	.....			4,025	12	10	
10	Surat (Guzerat Circle) ...	97,912	3	8	.....			97,912	3	8	.....			97,912	3	8	
11	Kaira (Panch Máháls) ...	10,848	9	2	.....			10,848	9	2	.....			10,848	9	2	
12	Ahmedabad...	105	0	0	.....			105	0	0	.....			105	0	0	
13	Broach	107	13	6	.....			107	13	6	.....			107	13	6	
14	Kanara	3,54,742	12	3	34,082	6	7	3,88,825	2	10	75,516	5	2	4,64,341	8	0	
15	Dharwar	42,144	8	1	853	11	0	42,998	3	1	6,545	6	0	49,543	9	1	
16	Belgaum	68,971	2	3	12,722	9	1	81,693	11	4	13,546	8	0	95,240	3	4	
17	Kaládgi	3,550	10	4	.....			3,550	10	4	162	12	0	3,713	6	8	
	Total...	8,83,777	0	9	51,184	14	6	9,34,961	15	3	1,01,811	13	3	10,36,773	12	6	

STATEMENT No. VII.

STATEMENT exhibiting the Amount of Outstanding Advances against Contractors, &c., at the commencement of the Year 1875-76, the Recoveries in Cash and Work done, and the Balances outstanding at the end of the same year.

Collectorates.	Advances.			Recoveries.			Balance outstanding at the close of the year 1875-76.
	Advances against Contractors, &c., at the commencement of the year 1875-76.	Amount advanced during the year 1875-76.	Total.	In Cash.	In Work.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Kanara	15,295 15 5	29,402 11 2	44,698 10 7	.....	20,758 15 8	20,758 15 8	23,939 10 11
Dharwar	942 1 9	3,700 0 0	4,642 1 9	.....	3,900 1 9	3,900 1 9	742 0 0
Belgaum	.....	3,300 0 0	3,300 0 0	.....	3,300 0 0	3,300 0 0	.....
Kaládgi	.....	.....	.....	.....	.....	.....	.....
Total ..	16,238 1 2	36,402 11 2	52,640 12 4	.....	27,959 1 5	27,959 1 5	24,681 10 11

STATEMENT No. VIII.

STATEMENT showing the Number of Forest Offences discovered and Number of Convictions obtained, the Amount of Fines imposed, and the Value of Property confiscated during the Year 1875-76.

Collectorates.	Cases in which conviction was obtained.	Cases in which conviction failed.	Total Number of Cases.	Fines imposed in cases in which conviction was obtained.			Value of Property confiscated.			Remarks.
				Rs.	a.	p.	Rs.	a.	p.	
Tanna	226	44	270	4,599	10	0	3,156	1	10	235 of these were discovered by the Forest Department.
Kolába	75	17	92	746	10	0	49	0	10	
Ratnágiri	12	1	13	30	4	0	1	12	11	All detected by the Forest Department.
Khandesh	35	9	44	1,718	0	0	175	6	1	
Násik	16	7	23	51	6	0	22	13	9	
Ahmednagar	24	3	27	49	4	0	21	12	5	
Poona	247	43	290	462	12	0	162	9	4	
Satara	34	11	45	149	8	0	23	9	10	
Sholápur	5	.....	5	2	0	0	0	2	6	
Surat (Guzerat Circle) ...	33	.....	33	130	12	0	54	0	0	
Kaira (Panch Máháls) ...	15	.....	15	94	0	0	.....			
Kanara	112	21	133	2,395	4	0	2,174	6	10	126 cases were discovered by the Forest Department. 7 do. do. by the Rev. Dept.
Dharwar	19	7	26	221	0	0	75	11	5	22 do. do. by the Forest do. 7 do. do. by the Rev. do.
Belgaum	35	10	45	433	8	0	556	3	3	28 do. do. by the Forest do. 11 do. do. by the Police do. 4 do. do. by the Rev. do. 2 do. do. on application.
Kaládgi	15	.....	15	93	0	0	6	13	6	15 do. do. by the Forest Dept.
Total...	903	173	1,076	11,176	14	0	6,480	8	6	

STATEMENT No. IX.

STATEMENT exhibiting the Value of Wood given gratis in the several Collectorates during the Year 1875-76.

Collectorates.	Value.	Remarks.
	Rs. a. p.	
Tanna	1,454 4 0	
Kolába	1,143 6 0	
Ratnágiri	49 7 0	
Khandesh	1,620 2 5	
Násik	1,536 11 4	
Ahmednagar	50 0 0	
Poona	481 14 3	
Satara	100 2 3	
Sholápur	.....	
Surat (Guzerat Circle)	3,499 7 6	
Kaira (Panch Máháls)	982 4 6	
Kanara	5,072 8 3	
Dharwar	373 14 0	
Belgaum	1,845 11 5	
Kaládgi	.....	
Total...	18,209 12 11	

STATEMENT No. X.

ABSTRACT Statement of Receipts and Charges of the Forest Departments, Northern and Southern Divisions, for the Year 1875-76.

Classification.	Northern Division. Amount.	Southern Division. Amount.
Receipts.	Rs. a. p.	Rs. a. p.
1. Sale of timber and wood brought to Depôt	1,54,945 2 0	3,92,393 11 4
2. Sale of timber removed by purchasers ...	1,77,212 2 1	79,861 12 3
3. Other aevenue	1,16,865 1 6	44,812 4 0
Total Receipts...	4,49,022 5 7	5,17,067 11 7
Charges.		
1. Timber expenses	56,283 9 11	1,27,768 15 10
2. Other charges on revenne	26,002 5 1	9,036 0 0
3. Improvement of forests	44,198 0 0	58,379 10 7
4. Miscellaneous	34,221 5 3	.....
Total A—Conservancy and Working ...	1,60,705 4 3	1,95,184 10 5
Total B—Establishment Charges...	1,41,680 8 10	95,931 12 1
Total Charges...	3,02,385 13 1	2,91,116 6 6

No. 3077 of 1876.

Revenue Department.

From

Colonel Sir W. L. MEREWETHER, K.C.S.I. and C.B.,
Commissioner in Sind,

To

His Excellency the Honourable
Sir PHILIP EDMOND WODEHOUSE, K.C.B. and G.C.S.I.,
Governor and President in Council, Bombay.

Commissioner's Office,
Kurrachee, 21*st August* 1876.

Honourable Sir,

I have the honour to foward herewith, with my remarks thereon, the Administration Report of the forests of Sind for the past year. It is with much regret that I have to inform your Excellency of Mr. Campbell's having been obliged, a few days after the preparation of the report, to proceed on two years' sick leave to Europe.

I have the honour to be,
Honourable Sir,
Your most obedient Servant,

W. L. MEREWETHER, Colonel,
Commissioner in Sind.

FOREST ADMINISTRATION REPORT OF SIND FOR THE OFFICIAL YEAR 1875-76.

SECTION I.—AREA AND BOUNDARIES.

The changes due to the action of the river Indus were smaller than in any of the three preceding years, as the following figures show :—

Year.	Lost.	Gained.	Net Result.
1872-73	10,500	11,501	1,100
1873-74	5,897	13,225	7,328
1874-75	7,204	17,120	9,916
1875-76	3,272	6,159	2,887
Total...	26,873	48,005	21,132

The net result of the changes in the year under review was an increase in area of 2,887 ; but, as explained in former reports, all the new land consists of banks of mud and sand of little or no present value, while 1,940 acres of the land lost were covered with valuable forests.

2. The changes in each division were as follows :—

Division.	Lost.	Gained.
Shikárpur	1,300	2,100
Hyderabad	1,295	2,500
Kurrachee	677	1,559
Total...	3,272	6,159

The forests which suffered most from erosion in the Shikarpure Division were Shah Shahu and Powari, each of which lost 250 acres ; but 400 acres of new land were deposited in front of Shah bela, and 200 acres in front of Shahu bela.

In the Hyderabad Division the most destructive erosions took place at the Mohba Dero and Sekhat forests, at each of which 250 acres of valuable babul forest were washed away.

In Kurrachee the only valuable lands lost were 20 acres in Viran and 200 in Lalung.

3. The endeavours to keep the threatened banks clear of timber and wood were fully as successful as in former years. On this work Rs. 1,999 were spent. Part of the material saved, sold for Rs. 1,440, and at the end of the year material valued at Rs. 3,108 remained on hand.

4. Of the lands mentioned in para. 7 of last year's report, all that were unoccupied were handed over to the Forest Department. The work of fixing the compensation to be paid to the occupants of cultivated lands included in the blocks selected, was entrusted to the Collector of Shikárpur, but the result of his inquiry has not yet been communicated to this Department.

5. Disputes regarding alluvial accretions adjoining the Shah and Keti Bagurgi forests were settled during the year. These involved, the former 500 acres and the latter 4,000 acres.

At the close of the year the following lands remained in dispute :—

In the Shikárpur Division—

	Acres.
At Shahpur	800
„ Kanuri	400
„ Keti Uhuro...	3,168
„ Jamshero	1,500
Total...	5,868

In the Hyderabad Division—

At Bhorti	1,200
„ Mahrahpur	1,700
Total...	2,900

The settlement of the Shahpur dispute was delayed from the Revenue Authorities confusing it with the Shah dispute, and thus considering it settled. The Kanuri and Uhuro questions are delayed by correspondence with His Highness Meer Ali Moorad, he and the Forest Department being the rival claimants in these cases. The papers regarding the Jamshero and Bhorti disputes are and have for a considerable time been with the Collector's Department. The Mahrahpur question was settled in May.

6. The annual inspection and repair of boundary-marks and the clearing of boundary paths were satisfactorily carried out.

SECTION II.—PRESCRIPTIVE RIGHTS AND REQUIREMENTS OF THE SURROUNDING POPULATION.

7. These having been explained in paras. 12 to 16 of the report for 1873-74, there is nothing to say under this section, except that the survey and assessment were completed of the 3,830 acres which are cultivated as of right in the forests under the circumstances explained in para. 12 of the report for 1873-74. In the course of the year under review the Forest Department bought up one of these holdings, 130 acres in extent, for Rs. 783. It is proposed to consolidate the forest estate by effecting similar purchases from time to time as occasion may offer.

SECTION III.—PROTECTION.

8. The proposals made by me in August 1874 for the re-distribution of the establishment and the creation of four divisions instead of three were sanctioned by the Government of India on 16th March 1876, and arrangements were at once made for introducing the new scale of establishment from 1st April.

9. The following forest offences were disposed of in the course of the year:—

Division.	Convictions.	Acquittals.	Total.	Amount of Fines.
				Rs.
Shikárpur	7	4	11	85
Hyderabad	10	6	16	187
Kurrachee	5	1	6	12
Total...	22	11	33	284

In all the cases the crime was discovered by forest subordinates In 26 cases the accused were charged with theft, in 7 cases with forcibly rescuing cattle, in 3 cases with mischief, and in 3 cases with criminal trespass.

10. Besides these offences committed against the Department by outsiders, there were 2 serious cases against Forest Officers. A tupedar, or ranger, was prosecuted for criminal breach of trust, he having made away with certain Government money which was in his charge. He was convicted and sentenced to rigorous imprisonment for 18 months. The amount of the miss-

ing money was recovered from his securities. A sub-ranger was tried on several charges of extortion and of criminal breach of trust in respect of certain grazing fees which he misappropriated to his own use. He was convicted, and the aggregate of the sentences passed on him amounted to 4 years' imprisonment and a fine of Rs. 300. With these exceptions the conduct of the subordinate establishment was, on the whole, good.

11. Forest fires were both numerous and extensive. As in former years they were almost entirely confined to the grass jungles of Upper Sind, from which experience has proved it to be practically impossible to exclude fires for any length of time.

In my annual report for 1873-74 I reported that fires had been more numerous and extensive than in former years, and that although every forest in which a fire occurred was forthwith closed against grazing, that measure had utterly failed to affect the number of fires.

In 1874-75 the fires decreased largely both in number and extent. At the time the cause of this improvement seemed to me to be that, although the punitive closing of fired tracts had not affected the number of fires in 1873-74 by reason of the cattle-owners not believing that we would carry out a threat so detrimental to our revenue as that of closing the forests for 12 months after the occurrence of fire, yet that in 1874-75 they had learned that we were in earnest, and were deterred from causing fires through fear of losing their grazing.

But in the past year, although the same rules were enforced, the number of fires and the area burnt were again larger; and it is now clear, in spite of the comparatively favourable results of 1874-75, that all the preventive measures which had yet been taken have been ineffectual in putting an end to forest fires in Upper Sind.

12. The Government of India's letter No. 943 of 24th August repeats the distinction (which is alluded to at page 11 of the Report of the Allahabad Forest Conference of 1874) between forests where fires are the exception and not the rule and those where fires are an annual phenomenon—certain preventive and punitive measures, as, for instance, laying responsibility on people living near or using the forest lands for pasture, being considered possible and suitable in the case of the former class of forests, but not in that of the latter class.

It will save trouble if we at once clearly recognize the fact that the forest lands in Upper Sind belong to the latter class. A very large proportion of the forest area there is covered with a dense mass of grass 10 to 12 feet high. In this tamarisk, poplar,

and prosopis (kundi) occur more or less frequently, but enveloped in and often over-topped by grass, the whole forming, when the leaves and tall seed stems of the grasses dry, a highly inflammable mass. Every year a large part of this succumbs to one or other of the numerous causes of fire to which it is exposed.

Many fires may have been caused intentionally either to drive away tigers or (before the days of preventive closing of fire tracts) to obtain a fresh crop of grass ; but in most cases it is impossible to prove whether the fire has been caused by the cattle-owners, or is due to causes beyond their control. Looking to the number of these causes, to the very small value of the trees which are to be found among the grass, to the fact that in almost no case have they over-topped and killed off the grass, and to the fact that the principal results of the punitive closing of forests have been irritation to the cattle-owners who frequent our belas and to the neighbouring zemindars, and loss of revenue to ourselves, I am of opinion that we should give up the idea of attempting to exclude fire from the whole area of the grass jungles which are under the Forest Department in Upper Sind, and that we should rather concentrate our attention on blocks of special value.

As far as I am aware it has not been attempted in any other part of India to protect the whole forest area from fire by special measures, these being reserved for blocks of special value or promise, and I think that in Sind the Forest Department should in like manner restrict its operations to certain selected tracts as explained in detail in my report No. 1423 of 2nd March last.

SECTION IV.—MANAGEMENT AND IMPROVEMENT.

13. The working plans referred to in para. 15 of last year's report have been acted on since 1st April 1875. They provided for the working of nearly all the babul forests of any value. The following is an outline of the system adopted. The forests were parcelled out into ranges, and each range, according to its size, was divided into 3 or 6 blocks. One-third of the number of blocks in each range is to remain entirely closed for 5 years, another third will be open for grazing, while the remaining third will be open for both grazing and felling. As the babul grows very fast, and the principal demand is for firewood, I think this rotation quite long enough for the bulk of our trees. A certain number of trees will be left standing for three or more rotations to meet demands for timber. The working plan is only an outline : many details will have to be worked out, and, probably, alterations made as time goes on and we gain experience. So far the plan has been very successful. The closed blocks have been fenced in, and the crop

of seedling babuls self-sown within these enclosures is very widely spread and very vigorous. At the same time the closing of these blocks has not practically interfered with our supplying all the timber and fuel for which there was a demand; but, as was to be expected, there has been a falling off in grazing fees.

14. The following figures show the increasing attention which is being paid to the important work of stocking the forests:—

Division.	Area under treatment up to April 1873.	Added in 1873-74	Added in 1874-75.	Added in 1875-76.	Total.
Shikárpur	78·4	755·34	150·	748·	1,731·38
Hyderabad	435·8	1,702·27	3,255·17	33,462·	38,855·12
Kurrachee	...	41·14	5,656	8,214·20	13,911·34
Total...	513·12	2,499·35	9,061·17	42,424·20	54,499·4

In 3,510 acres artificial reproduction was resorted to, while the rest of the area treated was, as above described, fenced in to exclude men and cattle and to allow natural reproduction.

As a rule, the trees propagated have been babul and tali (sissu), but a few experiments have been made with exotics. Among these most attention has been given to the bamboo. The area under this plant was increased from 15 to 30 acres, of which about 23 are doing well.

The expenditure on the 54,499 acres which were under treatment was Rs. 9,873, or Rs. 0-2-10 per acre. The total expenditure in the past three years (before which only 513 acres were under treatment) amounts to Rs. 17,388, or Rs. 0-5-1 per acre on the total area now under treatment.

SECTION V.—YIELD AND WORKING.

15. The yield of timber and firewood as compared with the previous year was as follows:—

Year.	Timber.	Posts.	Rafters.	Fuel.	Value.
	C. ft.	No.	No.	Maunds.	Rs.
1874-75	39,615	4,362	63,781	11,30,103	2,04,015
1875-76	32,641	5,423	1,16,480	11,60,715	2,17,149
Increase	...	1,061	52,699	...	13,134
Decrease	6,974	...	...	23,388	...

In the Shikárpur Division the yield was—

Year.	Timber.	Posts.	Rafters.	Fuel.	Value.
	C. ft.	No.	No.	Maunds.	Rs.
1874-75	18,546	822	36,180	3,53,709	65,524
1875-76	19,874	444	75,581	3,69,887	77,610
Increase	1,328	...	39,401	16,178	12,086
Decrease	...	378	...	...	...

In the Hyderabad Division the yield was—

Year.	Timber.	Posts.	Rafters.	Fuel.	Value.
	C. ft.	No.	No.	Maunds.	Rs.
1874-75	14,995	3,540	26,076	4,97,411	86,512
1875-76	11,002	4,979	37,449	4,80,363	91,379
Increase	...	1,439	11,373	...	4,867
Decrease	3,993	...	...	17,048	...

And in the Kurrachee Division the yield was—

Year.	Timber.	Posts.	Rafters.	Fuel.	Value.
	C. ft.	No.	No.	Maunds.	Rs.
1874-75	6,074	...	1,525	2,78,983	51,979
1875-76	1,765	...	3,450	2,56,465	48,098
Increase	...	...	1,925	...	...
Decrease	4,309	...	...	22,518	3,881

16. As explained in last year's report, Government departments and public companies in Sind use, as a rule, teak or deodar

when large timber is required; while the local demands for small building material and for firewood for domestic use are almost entirely met by supplies from lands not under the control of the Forest Department. The great market for the produce of the forests is as steam fuel. The demand for this has in the past five years been as follows:—

To whom supplied.	Maunds per Annum.				
	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.
Indus Steamer Flotilla ...	5,30,240	5,63,344	6,60,124	7,06,687	7,99,021
Sind Railway	64,250	1,83,599	1,89,675	2,13,150	75,775
Commissioner's steamer...	1,125	525	16,300	23,150	18,879
Punjab Government steamers	33,250	6,625	8,325	1,075	1,300
Indus Ferry steamers ...	17,525	18,800	22,610	23,700	22,275
River Conservancy Department	36,090	34,792	31,289	35,922	34,689
Public Works Department	1,875	2,237	562	4,050	1,950
Kurrachee Harbour Works Department	17,240	27,238	16,859	16,432	...
Nawab of Bhawul steamer.	...	7,228	3,175	750	17,078
Indus Valley (State) Railway	...	...	6,534	1,502	26,035
Ice Factory, Kurrachee ...	1,177	2,052	4,183	...	...
Total...	7,02,774	8,46,440	9,59,636	10,26,418	9,97,002

The falling off in the total of steam fuel sold is due to the fact that the Sind Railway gave up using wood as fuel at the beginning of the year under review. The demands of other consumers, however, rose from 8,13,268 in 1874-75 to 9,21,246 in 1875-76.

17. At the depôts established in large towns for the sale of forest produce, 36,743 maunds of firewood, 14,363 cubic feet of timber, 5,188 posts, 53,368 rafters and 2,399 maunds of charcoal were sold against 41,242 maunds of firewood, 17,044 cubic feet of timber, 3,228 posts, 32,635 rafters, and 1,625 maunds of charcoal in the previous year.

The depôts at Hyderabad and Sukkur were the most successful. The returns at Rohri, Shikárpur, Sehwán and Kotri, though smaller, were still good. While, as in previous years, the sales at Kurrachee were not remunerative.

To give sale at Kurrachee one more trial, I have ordered the old site, which was rather out of the way, to be given up, and two new depôts opened—one in the city near the cattle market and the other in the Suddur Bazaar.

Appendix E. shows in detail the quantity of material sold at each depôt and the amount of revenue derived therefrom.

18. Appendix B. shows by divisions and sub-divisions the yield of each description of material and its value, and also the return from grazing and all other sources. It also shows the average out-turn per acre with its value. These are calculated on the acreage shown in Appendices I. and J. to the Sind Forest Report for 1870-71. Since then the forests have changed considerably in area; but, until they are re-surveyed, a calculation based on these areas may be accepted as sufficiently correct for practical purposes. For the year under review this calculation shows the yield per acre to be 5,828 cubic feet as against 5,458 in 1873-74, 4,865 in 1872-73, 4,410 in 1871-72, and 3,982 in 1870-71.

19. In last year's report the absence of a general demand for babul timber was spoken of as one of the difficulties of forest management in Sind, and reference was made to a suggestion that we should supply, at Rs. 2 each, the sleepers required for the Sind Railway for renewals (about 8,000 a year). In the past year I offered to supply 8,000 sleepers on these terms, but was told that, since the question had been last discussed, the price of creosoted sleepers had fallen, and that the Indus Valley State Railway could not now afford to give more than Rs. 1-4-0 for a babul sleeper. As it would cost us more than this to prepare and deliver sleepers, the question of whether babul can be used for this purpose is set at rest.

SECTION VI.—FINANCIAL RESULTS.

20. The results of the year were, as compared with the estimates, as follows:—

	Budget Estimate.	Regular Estimate.	Actuals
	Rs.	Rs.	Rs.
Receipts	2,61,000	2,75,416	2,82,359
Expenditure on conservancy and working	1,35,405	1,37,607	1,31,610
Expenditure on establishment, &c. ...	63,063	65,816	58,810
Total expenditure...	1,98,108	2,03,423	1,90,420
Profit	62,892	71,993	91,939

Compared with 1874-75 the results of the year were as follows :—

	1874-75.	1875-76	1875-76 less than 1874 75.	1875-76 more than 1874-75.
	Rs.	Rs.	Rs.	Rs.
Receipts	2,70,598	2,82,359	...	11,761
Expenditure on conservancy and working	1,31,903	1,31,610	293	...
Expenditure on establishment, &c. ...	63,115	58,810	4,305	...
Total expenditure ..	1,95,018	1,90,420	4,598	...
Profit	75,580	91,939	...	16,359

21. The only heads under which there was a falling off of revenue, as compared with the previous year, were "timber removed by purchasers" and "minor produce other than grass." The practice of allowing purchasers to cut trees is being discouraged; hence the falling off under the former of the two heads mentioned above. The failure of the lac crop caused the decrease of revenue from minor produce. The increase in revenue from timber brought to depôt is due to increasing demand and the development of the depôts. Under firewood sold at depôts the increase is due to the price of steamer fuel having at the beginning of the year been raised from Rs. 16 to Rs. 18 per hundred maunds.

Increased sales of dead timber, which in the forests near Hyderabad and Sukkur is split up into firewood and carried off to the towns by the men who split it up, cause the rise from Rs. 377 to Rs. 1,174 under A. I. 2 *b*.

The increase under head IV. 3 is caused by larger returns from cultivation. This under the restrictions and conditions which are now imposed, often does good, and never does any harm to the forests.

22. The expenditure under conservancy and works was within 300 rupees of the amount so expended in the previous year.

There was an increase of Rs. 4,751 on expenditure for timber, corresponding to the increased revenue from that source.

The decrease under the head of firewood is accounted for by the cessation of the railway fuel operations. The cost of cutting and boating steam fuel was Rs. 10-11-0 per 100 maunds as against Rs. 10-12-0 in the preceding year.

Under cost of treatment of natural forest the expenditure rose from Rs. 6,538 to Rs. 9,873. This was money well spent, and if the forests of Sind are to be re-stocked and put into proper order, Rs. 10,000 to Rs. 12,000 must annually be expended under this head.

23. The decrease of expenditure, under head B.—Establishment, is principally due to the fact that while I was absent on 6 months' leave Mr. Hexton did the Conservator's work in addition to his own.

24. The outstandings were, at the beginning of the year, Rs. 1,849-12-11, and at the end of the year Rs. 1,165-5-0 ; most of the money has since been recovered.

25. The stock in hand, as will be seen from the tabular statement, Appendix D., rose in value from Rs. 61,917 on March 31st, 1875, to Rs. 87,083 on March 31st, 1876.

26. The above figures do not include the revenue from sales of timber, &c., on waste revenue lands which under Government Resolution No. 129, dated 6th January 1876, are now credited to the Forest Department. Rs. 47 were thus realized in the Shikárpur Collectorate and Rs. 381 in the Hyderabad Collectorate. I have not learnt from the Collector of Kurrachee the amount of revenue derived from this source in his district.

SECTION VII.—GENERAL REMARKS.

27. On 7th May I gave over charge of the Conservator's Office to Mr. Hexton, and proceeded on special leave to Europe. I resumed charge on December 8th, 1875. In November Mr. Hexton made a tour through the Miáni, Unarpur, Kátyár, and Viran tapas. On resuming charge I marched from Kotri to Jerruck. Thence I crossed the Indus, and marched up the left bank through the Kátyár and Miáni tapas. I then re-crossed the Indus to the Unarpur Tapa, and marched up the right bank to Sukkur, which I reached on 27th January 1876. From that date till 4th March 1876 I was occupied in examining the forests north of Sukkur. On the latter date I left Sukkur, and proceeded by boat to the northern extremity of the Hyderabad District. I then marched down through the forests of that district, reaching Hyderabad on 31st March 1876.

28. During my absence Mr. Hexton was in charge of two

offices—that of the Conservator and that of the Assistant Conservator, Hyderabad Division.

Mr. Dasai was absent from 14th October 1875 to 8th December 1875 at Poona, attending the Forest Departmental Examination which he passed. In his absence Mr. Greatheed was put in charge of the Shikárpur Division. Mr. Greatheed, then a supernumerary, was on privilege leave from 7th August 1875 to 13th October 1875. Mr. Hight was in charge of the Kurrachee Division throughout the year.

29. Mr. Hexton and Mr. Hight continued to merit the commendation which was given to them in last year's report. Mr. Dasai had in Shikárpur a very difficult charge. He worked hard, and, on the whole, his management was successful. Mr. Greatheed, throughout the year, was, except for a short time, a supernumerary, and thus had little or no opportunity for doing noteworthy service; but the re-distribution of charges, which took effect from April 1st, 1876, has now enabled me to put him in charge of a division.

30. The map, as ordered in the 5th paragraph of Despatch No. 5, dated 23rd September 1875, from Her Majesty's Principal Secretary of State, is under preparation in the Photozincographic Office. As soon as it is received I will forward a copy to be attached to this report.

J. McL. CAMPBELL,
Conservator of Forests in Sind.

Camp Hyderabad, 14*th August* 1876.

A.

STATEMENT of Revenue and Expenditure.

Budget Heads.	Actuals for 1874-75.	Budget Estimate 1875-76.	Actuals for 1875-76.
	Rs.	Rs.	Rs.
I.—Revenue from Wood.			
1.—*Brought to Depôt by Departmental Agency.*			
(*a.*) Timber	14,713	12,000	19,781
(*b.*) Firewood and charcoal	1,78,632	1,73,000	1,88,188
2.—*Wood removed from the Forests by Purchasers, License-holders, and Permit-holders.*			
(*a.*) Timber	6,895	6,000	2,945
(*b.*) Firewood and charcoal	3,776	2,500	6,174
II.—Revenue from Minor Produce.			
1. Grazing dues and sale of grass ...	36,016	40,000	36,148
2. Other Minor Produce	15,896	13,000	9,392
IV.—Miscellaneous.			
1. From fines and forfeitures	34	250	36
2. From refunds to the Department ...	.....	.....	.....
3. From other sources	14,636	15,000	19,695
Total...	2,70,598	2,61,750	2,82,359
Amount reduced by the Government of India to make up round figures ...	.....	750	.....
		2,61,000	

Expenditure.

Budget Heads.	Actuals for 1874-75.	Budget Estimate for 1875-76.	Actuals for 1875-76.
A.—CONSERVANCY AND WORKS.	Rs.	Rs.	Rs.
I.—Cost of Timber Operations—			
1. On wood brought to Depôt by Departmental Agency—			
(a.) Timber	4,965	6,500	9,717
(b.) Firewood and charcoal	1,15,627	1,14,000	1,06,552
2. On wood removed from the forests by purchasers, &c.—			
(a.) Timber	33	775	38
(b.) Firewood and charcoal	69	1,125	136
3. On confiscated drift and waif wood ...	...	...	1
II.—Cost of collecting Minor Produce—			
1. Grazing and sale of grass	24	...	87
2. Other forest produce...	588	250	115
III.—Cost of Forest Organization—			
1. Demarcation lines and boundary pillars and marks	185	1,035	1,048
2. Working plans	118	100	58
3. Surveys	12	600	16
IV.—Cost of Treatment and Creation of Forests—			
1. Natural Forests—			
(a.) Protection from fire	765	1,350	629
(b.) Fencing and enclosing	804	1,400	2,129
(c.) Improvement and conservation ...	1,130	750	1,400
(d.) Reboisement or restoration of denuded areas	3,839	4,000	5,715
2. Artificial Forests—			
(a.) Formation	...	...	121
(b.) Protection from fire	...	...	...
(c.) Improvement and conservation ..	...	...	365
(d.) Fencing and enclosing	...	...	...
VII.—Works of Utility for the Development of Forests—			
1. Roads and bridges	1,791	500	55
2. Buildings and offices...	595	1,500	1,010
3. Compensation for land taken up for forest purposes, &c.	102	...	783
4. Other works	...	...	...
Carried forward ..	1,30,647	1,33,885	1,29,975

Budget Heads	Actuals for 1874 75.	Budget Estimate for 1875-76.	Actuals for 1875 76.
	Rs.	Rs.	Rs.
Brought forward...	1,30,647	1,33,885	1,29,975
A.—CONSERVANCY AND WORKS *—continued.*			
VIII —Cost of Departmental Cattle—			
1. Purchase of stock	150	200	105
2. Hire of stock	6	...	201
3. Feed and keep of cattle	164	240	192
IX.—Cost of Departmental Plant and Tools—			
1 For timber and wood operations ...	348	300	990
2 For other purposes	562	420	149
X —Miscellaneous—			
1. Refunds	...	...	...
2. Law charges	26	...	...
3. Other charges	...	...	...
Total A.—Conservancy and Works...	1,31,903	1,35,045	1,31,610
B.—ESTABLISHMENT.			
I.—Salaries—			
1. Pay of Conservator	8,176	8,400	8,294
2. Pay of Control and Executive Officers ..	15,451	16,800	13,650
3 Office Establishment	5,958	5,974	5,914
4 Protective Establishment	17,278	17,266	16,860
5. Deputation and special allowances ...	2,336	2,400	917
Deduct probable savings	...	833	...
II.—Travelling Allowances—			
1. Conservator	2,888	2,400	2,600
2. Control and Executive Officers ...	6,595	7,200	6,364
3. Protective Establishment	128	..	143
4 Office Establishment..	1,610	2,100	1,901
Deduct probable savings	...	1,172	...
III.—Contingencies—			
1. Stationery	912	783	413
2. Carriage of tents and records	554	82	609
3 Pay of Police Guards	...	...	...
4. Sundries	679	1,076	560
5. Official postage	550	587	585
Total of B —Establishment...	63,115	63,063	58,810
Total V.—Forest Expenditure .	1,95,018	1,98,108	1,90,420

C. A. HIGHT,
For Conservator of Forests in Sind.

Statement B.

B.

STATEMENT showing the Yield of Govern

Names of Forest Divisions.	Area in Acres.	Yield of Timber per range. Cubic Feet.		Yield of Posts per range Number.		Yield of Rafters per range. Number.		Yield of Fire-wood per range. Maunds.	
		1874-75.	1875-76.	1874-75.	1875-76.	1874-75.	1875-76.	1874-75.	1875-76.
I.—Shikárpur.									
Rohri	60,159 34	10,985	9,459	800	444	23,300	58,084	69,608	74,617
Sukkur ..	66,112 0	7,534	10,415	10	...	12,574	16,612	2,22,989	2,24,599
Lárkána	16,942 0	27	...	12	...	306	885	61,112	70,671
Total .	1,43,213 34	18,546	19,874	822	444	36,180	75,581	3,53,709	3,69,887
Value of the above.	...	7,416	10,118	190	132	3,339	3,695	54,579	63,665
II.—Hyderabad.									
Kandiáro	23,340 29	966	615	1,520	2,838	8,719	4,776	19,469	18,918
Nowshero	28,819 12	1,788	4,737	2,020	..	10,645	7,098	1,96,913	2,12,537
Rano	32,290 12	2,066	450	..	100	3,762	9,223	67,151	80,020
Miáni	27,859 2	3,369	4,740	...	2,041	800	6,990	1,33,846	1,36,243
Shahmakal	411 14	..	60	...	...	...	...	675	350
Kátyár	9,254 34	6,806	400	...	...	2,150	9,362	70,357	32,295
Total ..	1,21,975 28	14,995	11,002	3,540	4,979	26,076	37,449	4,97,411	4,80,363
Value of the above.	...	5,473	4,105	448	969	1,464	2,174	79,127	84,131
III.—Kurrachee.									
Sehwan	1,787 0	...	42	...	...	75	...	...	[illegible]
Unarpur	20,977 0	5,255	1,170	...	..	350	2,700	1,65,388	1,94,4[illegible]
Kotri	1,701 0	225	288	...	...	...	...	9,472	8,2[illegible]
Viran	25,074 0	94	219	...	...	1,000	400	79,559	46,68[illegible]
Sháhbandar ...	37,312 30	500	46	...	...	100	350	24,564	7,106
Total...	86,851 30	6,074	1,765	...	...	1,525	3,450	2,78,983	2,56,46[illegible]
Value of the above.	...	3,242	1,464	...	...	35	69	48,702	46,565
Grand Total ..	3,52,041 7	39,615	32,641	4,362	5,423	63,781	1,16,480	11,30,103	11,06,71[illegible]
Value of the above .	...	16,131	15,749	638	1,101	4,838	5,938	1,82,408	1,94,361

ment Forests in Sind during 1875-76.

Revenue from Minor Produce per Range.		Grazing Fees per Range.		Total Receipts per Range.		Total Receipts per Acre per annum.		Yield in cubic feet per acre per annum	
1874-75.	1875-76.	1874-75.	1875-76.	1874-75.	1875-76.	1874-75.	1875-76.	1874-75.	1875-76.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.		
923	1,896	1,245	2,774	18,957	24,954	0 5 11	0 6 8	2·575	2·526
1,975	4,301	2,096	4,329	43,008	53,309	0 10 4	0 12 11	6·111	6·228
533	53	716	605	11,047	13,305	0 10 5	0 12 7	6·323	7·325
...	...	..	...	...	...	...	...	...	...
3,431	6,250	4,057	7,708	73,012	91,568	0 8 2	0 10 3	4·521	4·869
4,026	4,248	2,752	2,354	10,865	10,671	0 7 5	0 7 3	1·728	1·666
1,915	1,439	4,077	3,173	39,289	43,738	1 5 6	1 7 11	12·047	9·717
2,890	4,386	4,905	4,159	19,689	23,523	0 9 9	0 11 8	3·761	4·529
10,676	5,353	6,470	5,115	39,166	38,540	1 6 6	1 6 1	8·543	8·769
766	198	45	...	919	281	2 3 10	0 10 11	2·873	1·635
2,015	2,255	1,924	1,565	19,016	9,329	2 0 11	1 0 1	15·858	6·777
...	...	...	...	...	...	...	...	...	...
22,288	17,879	20,173	16,966	1,28,973	1,26,224	1 0 10	...	7·361	...
...	...	126	115	131	131	0 1 2	0 1 2	0·021	0·027
2,032	1,644	3,369	3,399	34,828	41,264	1 10 0	1 14 9	13·737	15·969
73	86	351	334	2,377	2,494	1 6 4	1 7 6	9·877	8·646
563	1,053	3,343	2,971	20,384	12,506	0 13 5	0 8 2	5·701	3·348
2,179	2,212	4,597	4,655	10,892	8,171	0 4 8	0 3 6	1·159	0·336
...	...	...	...	...	...	...	...	...	...
4,847	4,995	11,786	11,474	68,612	64,567	0 12 7	...	5·684	5·194
...	...	...	...	...	...	...	...	...	...
30,566	29,124	36,016	36,148	2,70,597	2,82,359	0 12 4	0 12 9	5·828	5·769

C. A. HIGHT,
For Conservator of Forests in Sind.

C.

Total Yield of Forests reduced to Cubic Feet.

Class of Materials.	1874-75 Cubic Feet.	1875-76. Cubic Feet	Increase in 1875-76.	Decrease in 1875-76
Timber	39,615	32,641	...	6,974
Posts 100 equal to 62 cubic feet...	2,704	3,362	658	...
Rafters 100 equal to 50 cubic feet	31,890	58,240	26,350	...
Firewood 100 maunds equal to 175 cubic feet	19,77,680	19,36,750	...	40,930
Total on 3,52,041 acres...	20,51,889	20,30,993	...	20,896
Total per acre per annum .	5,828	5,769	...	·059
Realized on the above ..	2,04,015	2,17,088	13,073	...
Add—Grazing fees and minor produce	66,582	65,271	...	1,311
Gross receipts on 3,52,041 acres . .	2,70,597	2,82,359	11,762	...
Total per acre per annum...	0 12 4	0 12 9	0 0 5	...

C. A. HIGHT,

For Conservator of Forests in Sind.

D.

STOCK on hand on March 31st, 1876.

Where situated.	Timber. Cubic Feet.		Posts. Number.		Rafters. Number.		Firewood. Maunds.		Charcoal. Maunds.		Value of Stock in hand. Rs	
	1874-75.	1875-76.	1874 75.	1875-76.	1874-75	1875-76.	1874-75.	1875 76.	1874-75.	1875-76.	1874-75	1875-76.
In the forests ...	9,931	3,248	1,615	8,219	4,795	3,255	87,356	1,09,140	...	2,121	12,521	16,489
At wooding stations and depôts	4,742	10,152	419	646	13,396	24,432	2,52,606	2,41,798	...	2,356	49,396	70,594
Total ..	14,673	13,400	2,034	8,865	18,191	27,687	3,39,962	3,50,938	...	4,477	61,917	87,083

C. A. HIGHT,

For Conservator of Forests in Sind.

E.

STATEMENT of Sales at Depôts in 1875-76.

Name of Depôts and Class of Material sold.	By Private Sales.			By Auction Sales.		
	Amount sold.	Price realized.	Rate.	Amount sold.	Price realized.	Rate.
		Rs. a. p.	Rs. a. p.		Rs.	Rs. a. p.
Depôt Shikárpur.						
Timber ... ... C. ft.	1,418	709 0 0	0 8 0	893	155	...
Posts ... . No.	228	66 0 0	...	25	2	...
Rafters ... ... No.	2,948	310 0 0	...	...	...	...
Depôt Sukkur.						
Planks ... ... Sq. ft.	17	3 0 0	0 2 10	...	...	...
Timber ... ... C. ft.	10,281	6,374 0 0	0 9 11	2,076	398	...
Rafters ... ... No.	9,775	983 0 0	...	...	...	...
Depôt Rohri.						
Timber ... ... C. ft.	1,014	394 0 0	0 6 3	114	18	...
Rafters ... ... No.	10,914	1,121 0 0	..	...	...	...
Posts ... ... No.	259	86 0 0	...	..	...	...
Depôt Hyderabad.						
Timber ... ... C. ft.	1,328	932 0 0	0 11 3	...	...	...
Posts ... ... No.	4,701	951 0 0	20 3 1	...	...	...
Bhan rafters	12,540	1,056 0 0	8 6 9	1,800	91	5 0 11
Jom do.	9,362	287 0 0	3 1 3	...	...	...
Firewood ... ... Mds.	24,939	5,207 0 0	20 14 1	1,300	275	21 2 5
Charcoal ... .. Mds.	1,739	989 0 0	56 13 11	150	91	60 10 8
Depôt Kurrachee.						
Firewood ... ... Mds.	2,512	904 6 0	35 15 11	...	...	...
Depôt Kotri.						
Felloes ... ... No.	219	59 8 0	0 4 4	...	...	...
Timber ... ... C. ft.	116	57 4 0	0 7 11	...	...	...
Firewood ... ... Mds.	7,743	1,487 14 0	19 3 5	...	...	...
Charcoal ... ... Mds.	660	338 12 9	51 3 7	...	...	...
Depôt Sewhan.						
Bhan rafters ... ... No.	7,829	543 11 0	6 15 1	...	...	...
Firewood ... ... Mds.	249	42 5 9	17 0 3	...	...	...
Timber ... ... C. ft.	206	172 0 0	0 13 4	...	...	...
Total Sales at Depôts.						
Timber ... ... C. ft.	14,363	8,638 4 0	0 9 7	3,083	571	0 2 11
Posts ... ... No.	5,188	1,103 0 0	21 4 2	PH 25	2	0 1 3
Bhan rafters ... ... No.	44,006	4,013 11 0	9 1 10	PH 1,800	91	5 0 11
Planks ... ... C. ft.	17	3 0 0	0 2 10	...	...	...
Jom rafters ... ... No.	9,362	287 0 0	3 1 3	PH ...	...	...
Firewood ... ... Mds.	35,443	7,641 9 9	21 8 11	PH 1,300	275	21 2 5
Charcoal ... ... Mds.	2,399	1,327 12 9	55 5 0	PH 150	91	60 10 8
Felloes ... ... No.	219	59 8 0	0 4 4	...	...	...

C. A. HIGHT,
For Conservator of Forests in Sind.

No. 3076 of 1876.

REVENUE DEPARTMENT.

Commissioner's Office,
Kurrachee, 21*st August* 1876.

REMARKS BY THE COMMISSIONER IN SIND ON THE CONSERVATOR OF FORESTS' ADMINISTRATION REPORT.

1. An unusually small area was lost by the erosion of the River Indus during the past year, and the endeavours of the Forest Department were successful, the Conservator reports, in keeping the threatened banks clear of timbers.

2. The questions as to the amount of compensation to be granted for land taken up for the forests and the settlement of the disputes regarding the alluvial accretions in the collectorates of Kurrachee, Hyderabad, and Shikárpur, referred to in paras. 4 and 5, should be inquired into as soon as possible after the opening of the cold season, and the district officers will be addressed with this view, as the Commissioner is very strongly of opinion that delay in such cases only leads to further ultimate confusion.

3. The purchase of all lands cultivated within the limits of the preserves is most desirable; and that this course for consolidating the forests' estate is having attention, appears from para. 7 of the report. The project must, however, be carried out gradually and when occasions offer, as suggested.

4. The re-distribution of the establishment and its divisions into four, instead of three, charges was sanctioned in March last by the Government of India, and, when effected, the arrangement cannot fail to tend to the better management of the forests, as the different charges were formerly too extensive and scattered to be conveniently administered.

5. The Commissioner quite concurs in the opinion expressed by the Conservator in his 12th para. The experiment has been fairly tried, and experience shows how hopeless it is to prevent fires in the large grass-covered tracts of Upper Sind; while the result of punitive closing has been the irritation of cattle-owners and of the neighbouring zemindars, and a serious loss of revenue to the State. In some belas, the Suddaja for instance, a large portion of the present forest area, which is covered with nothing but high reed grass, might with advantage be relinquished by the Department, and only that part which promises to be of special value retained.

6. The working plan described in para. 13 is an excellent one, and no decrease in fees should cause it to be abandoned, as the temporary loss on fees would be more than repaid by subsequent receipts for the good timber which will be at hand for sale when required. The bamboo has been successfully planted by Mr. Campbell in the forests of Sind, and for the introduction of this valuable product Government is indebted to that officer's interest and exertions.

7. The Sind, Punjab, and Delhi Railway have given up using wood as fuel on their engines; but it must be remembered that the Indus Valley State Railway will be a large and steady consumer, and without careful provision being made it will be difficult to supply their demands. It is most fortunate that Mr. Campbell has lately been giving this subject his best attention.

8. The establishment of more convenient and central depôts for the sale of firewood in the town of Kurrachee will, it is hoped, be found successful. There can be no doubt that people, more especially servants, prefer buying absolute rubbish as fuel near at hand to going a comparatively short distance to secure a better article. The complaint that the lot sold at the depôts were too large, has also been attended to, and it may with confidence be expected that these depôts will prove more remunerative in future.

9. Looking to the financial results of the year, it seems there was an increase in receipts of Rs. 11,761 and a decrease in expenditure of Rs. 4,598 as compared with the previous year, while the total profits amounted to Rs. 91,939, or Rs. 6,359 in excess of those in 1874-75.

10. The Commissioner is glad to hear that Mr. Hexton and Mr. Hight still continue to merit the commendation of their superior officer, and he notices that Mr. Dasai's work is more favourably reported on than in the previous year's administration report.

11. It is with sincere regret the Commissioner has heard of Mr. Campbell's severe illness necessitating his immediate departure on two years' sick leave to Europe, and thereby causing the loss of his valuable services to the province. Under Mr. Campbell's intelligent and judicious administration the Sind forests have been placed on a regular and practical working system, from which improved results must follow, and nothing will give the Commissioner greater pleasure than to hear of Mr. Campbell's return to his duties in Sind with restored health.

W. L. MEREWETHER, Colonel,
Commissioner in Sind.

Forests—Annual Administration Reports.

No. 495.

REVENUE DEPARTMENT.

Bombay Castle, 26th January 1877.

Letter from the Commissioner in Sind, No 3077, dated 21st August 1876 —Forwarding, with his remarks, the annual administration report of the Forest Department in Sind for the year 1875-76.

Letter from the Conservator of Forests, S. D., No. 1454, dated 27th August 1876—Forwarding the annual administration report of the Forest Department, Southern Division, for the year 1875-76.

Memorandum from the Revenue Commissioner, S. D., No. 2901, dated 31st August 1876.

Letter from the Conservator of Forests, N. D., No. 2837, dated 4th October 1876—Submitting the administration report of the Forest Department, Northern Division, for the year 1875-76.

Letter from the Revenue Commissioner, N. D., No. 5673, dated 16th November 1876.

Memorandum from the Officer in charge of the Office of Revenue Commissioner, S. D., No. 3984, dated 23rd November 1876.

Letter from the Government of India, No. 10, dated 10th January 1877.

Letter from the Superintendent, Government Central Press, No. 115, dated 16th January 1877.

RESOLUTION.—Copies of the reports are to be forwarded to the Secretary of State and the Government of India.

2. The principal topics referred to have from time to time been separately dealt with and disposed of by Government as they arose.

E. W. RAVENSCROFT,
Chief Secretary to Government.

To

The Commissioner in Sind,
The Revenue Commissioner, N. D.,
The Revenue Commissioner, S. D.,
The Temporary Revenue Commissioner, Kanarese Districts,
The Conservator of Forests, N. D.,
The Conservator of Forests, S. D.,
The Conservator of Forests in Sind,
All Collectors, including the Collectors and Political Superintendents in Sind, and the First Assistant Collector, Panch Máháls.
The Government of India (by letter).
} With copies of the reports.

BOMBAY:

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